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dents permy 1, 11, 2, drong ments ments permy permy 1, 11, 2, drong ments ments permy permy 1, 11, 2, drong ments of the first first the first first the first ments of the first ments of the first first ments of the first ments of
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Fai

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SEQUENCE LISTING
<110> Watkins, Maren
      Olivera, Baldomero M.
Hillyard, David R.
      McIntosh, J. Michael
       Jones, Robert M
<120> Alpha-Conotoxin Aeptides
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<150> US 60/118,381
<151> 1999-01-29
<160> 404
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      at residue 2 is des-Xaa, Ala or Gly Xaa at residue 3 is des-Xaa, Gly, Trp (D or L), neo-Trp,
      halo-Trp or any unnatural aromatic amino acid.
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<222> (4)..(5)
<223> Xaa at residue 4 is des-Xaa, Gly, Trp (D or L), neo-Trp, halo-Trp or any unnatural aromatic amino
       acid; Xaa at residue 5 is Glu, gamma-carboxy-Glu
       (Gla), Asp, Ala, Thr, Ser, Gly, Ile, Tyr, nor-Tyr,
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<222> (5)..(8)
<223> mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr or any unnatural hydroxy
       containing amino acid; Xaa at residue 8 is Ser,
       Thr, Arg, ornithine, homoarginine, Lys,
       N-methyl-Lys,
<220>
<221> PEPTIDE
<222> (8)..(9)
<223> N.N-dimethyl-Lys, N.N.N-trimethyl-Lys or any
       unnatural basic amino acid; Xaa at residue 9 is
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       N-methyl-Lys, N, N-dimethyl-Lys,
       N, N, N-trimethyl-Lys or
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<220>
<221> PEPTIDE
<222> (9)..(11)
<223> any unnatural basic amino acid; Xaa at residue 10
      is Ser, The, Asn, Ala, Gly, His, halo-His, Pro or hydroxy-Pro; Xaa at residue 11 is Thr, Ser, Ala,
       Asp, Asn, Pto, hydroxy-Pro,
<220>
<221> PEPTIDE
<222> (11)..(13)
<223> Arg, ornithine homoarginine, Lys, N-methyl-Lys,
     N,N-dimethyl-Lys, N,N,N-trimethyl-Lys or any
       unnatural basic amino acid; Xaa at residue 13 is
       Gly, Ser, Thr, Ala, Asn,
<220>
<221> PEPTIDE
<222> (13)..(14)
<223> Arg, ornithine, homoarginine, Lys, N-methyl-Lys,
      N, N-dimethyl-Lys, N, N, N-trimethyl-Lys or any
       unnatural basic amiho acid; Xaa at residue 14 is
       Gln, Leu, His, halo√His, Trp (D or L), halo-Trp,
       neo-Trp,
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<223> Tyr, nor-Tyr, mono-hald-Tyr, di-halo-Tyr,
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       ornithine, homoarginine, Lys, N-methyl-Lys,
      N, N-dimethyl-Lys, N, N, N-trimethyl-Lys, any
      unnatural basic amino
<220>
<221> PEPTIDE
<222> (14)..(15)
<223> acid or any unnatural aromatic amino acid; Xaa at
       residue 15 is Asn, His, halo-His, Ile, Leu, Val,
       Gln, Arg, ornithine, homoarginine, Lys,
       N-methyl-Lys, N, N-dimethyl-Lys,
      N, N, N-trimethyl-Lys or any
<220>
<221> PEPTIDE
<222> (15)..(16)
<223> unnatural basic amino acid; X_{f a}a at residue 16 is
       des-Xaa, Val, Ile, Leu, Arg, ornithine,
       homoarginine, Lys, N-methyl-Lys, N,N-dimethyl-Lys,
       N, N, N-trimethyl-Lys or any unnatural basic amino ·
       acid.
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Xaa
<210> 2
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<223> Description of Artificial Sequence: Alpha-Conotoxin
       Peptide Generic Fdrmula II.
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<223> Xaa at residue 1 is des-Xaa, Asp, Glu or
       gamma-carboxy-Glu (Gla); Xaa at residue 2 is
       des-Xaa, Gln, Ala, Asp, Glu, Gla; Xaa at residue 3
       is des-Xaa, Gly, Ala, Asp, Glu, Gla, Pro or
       hydroxy-Pro.
<220>
<221> PEPTIDE
<222> (4)..(7)
<223> Xaa at residue 4 is deṣ-Xaa4, Gly, Glu, Gla, Gln,
       Asp, Asn, Pro or hydroxy-Pro; Xaa at residue 7 is
       Ser, Thr, Gly, Glu, Gla, Asn, Trp (D or L),
       neo-Trp, halo-Trp, Arg, ornithine, homoarginine,
<220>
<221> PEPTIDE
<222> (7)
<223> Lys, N-methyl-Lys, N,N-dimethyl-Lys,
       N,N,N-trimethyl-Lys, any unnatural basic amino acid, Tyr, nor-Tyr, mono halo-Tyr, di-halo-Tyr,
       O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr or any
       unnatural hydroxy
<220>
<221> PEPTIDE
<222> (7)..(8)
<223> containing amino acid; Xaa at residue 8 is Asp,
       Asn, His, halo-His, Thr, Ser, Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr or any unnatural hydroxy
<220>
<221> PEPTIDE
<222> (8)..(10)
<223> containing amino acid; Xaa at residue 9 is Pro or
    hydroxy-Pro; Xaa at residue 10 is Ala, Ser, Thr,
    Asp, Val, Ile, Pro, hydroxy-Pro, Tyr, nor-Tyr,
    mono-halo-Tyr, di-halo-Tyr, O sulpho-Tyr,
<220>
<221> PEPTIDE
<222> (10)..(12)
<223> O-phospho-Tyr, nitro-Tyr or any unnatural hydroxy
       containing amino acid; Xaa at residue 12 is Gly,
       Ile, Leu, Val, Ala, Thr, Ser, Pro, hydroxy-Pro,
       Phe, Trp (D or L), neo-Trp, halo\frac{1}{3}Trp, Arg,
       ornithine,
<220>
<221> PEPTIDE
<222> (12)..(13)
<223> homoarginine, Lys, N-methyl-Lys, NNN-dimethyl-Lys,
       N, N, N-trimethyl-Lys, any unnatural \basic amino
       acid or any unnatural aromatic amino acid; Xaa at
       residue 13 is Ala, Asn, Phe, Pro, hydroxy-Pro,
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<220>

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<221> PEPTIDE
<222> (13)
<223> Glu, Gla, Gln, His, halo-His, Val, Ser, Thr, Arg, ornithine, homoarginine, Lys, N-methyl-Lys,
      N, N-dimet \ yl-Lys, N, N, N-trimethyl-Lys or any
      unnatural basic amino acid.
<220>
<221> PEPTIDE
<222> (14)
<223> Xaa at residue 14 is Thr, Ser, His, halo-His, Leu, Ile, Val, Asn, Met, Pro, hydroxy-Pro, Arg,
      ornithine, homoarginine, Lys, N-methyl-Lys,
      N, N-dimethyl-Lya, N, N, N-trimethyl-Lys, any
      unnatural basic
<220>
<221> PEPTIDE
<222> (14)..(15)
nitro-Tyr or any unnatural hydroxy containing
      amino acid; Xaa at residue 15 is Asn, Pro,
      hydroxy-Pro, Gln, Ser \ Thr,
<220>
<221> PEPTIDE
<222> (15)
<223> Arg, ornithine, homoarginine, Lys, N-methyl-Lys,
      N, N-dimethyl-Lys N, N, N-tr\methyl-Lys, any
      unnatural basic amino acid, Tyr, nor-Tyr,
      mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr,
      O-phospho-Tyr, nitro-Tyr
<220>
<221> PEPTIDE
<222> (15)..(16)
<223> or any unnatural hydroxy containing amino acid;
      Xaa at residue 16 is des-Xaa, Aly, Thr, Ser, Pro,
      hydroxy-Pro, Tyr, nor-Tyr, monothalo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phdspho-Tyr,
      nitro-Tyr or any
<220>
<221> PEPTIDE
<222> (16)..(17)
<223> unnatural hydroxy containing amino acid; Xaa at
      residue 17 is des-Xaal4, Ile, Val, Asp, Leu, Phe,
      Arg, ornithine, homoarginine, Lys, Ntmethyl-Lys,
      N, N-dimethyl-Lys, N, N, N-trimethyl-Lys, any
      unnatural
<220>
<221> PEPTIDE
<222> (17)..(19)
<223> basic amino acid, Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr
      nitro-Tyr or any unnatural hydroxy containing
      amino acid; Xaa at residue 19 is des-Xaa, Gly,
      Ala, Met, Ser,
<220>
<221> PEPTIDE
<222> (19)
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<223> Thr, Trp (D or L), neo-Trp, halo-Trp, any
      unnatural aromatic amino acid, Arg, ornithine,
      homoarginine, Lys, N-hethyl-Lys, N,N-dimethyl-Lys,
      N, N, N-trimethyl-Lys or any unnatural basic amino
<220>
<221> PEPTIDE
<222> (20)
<223> Xaa at residue 20 is des-Xaa, Trp (D or L),
      neo-Trp, halo-Trp, any unnatural aromatic amino
      acid, Arg, ornithine, homoarginine, Lys,
      N-methyl-Lys, N, N-dimethyl-Lys,
      N, N, N-trimethyl-Lys or any
<220>
<221> PEPTIDE
<222> (20)..(21)
<223> unnatural basic amino acid; Xaa at residue 21 is
      des-Xaa, Arg, ornithine, homoarginine, Lys,
      N-methyl-Lys, N, N-dimethyl-Lys,
      N, N, N-trimethyl-Lys or any unnatural basic amino
      acid.
<400> 2
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Xaa Cys Xaa Xaa Xaa
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<210> 3
<211> 28
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Alpha-Conotoxin
      Peptide Generic Formula III.
<220>
<221> PEPTIDE
<222> (1)..(3)
<223> Xaa at residue 1 is des-Xaa, Ser or Thr; Xaa at residue 2 is des-Xaa, Asp, Glu, †carboxy-Glu (Gla), Asn, Ser or Thr; Xaa at residue 3 is
      des-Xaa, Ala, Gly, Asn, Ser, Thr, Pro,
      hydroxy-Pro, Arg,
<220>
<221> PEPTIDE
<222> (3)..(4)
<223> ornithine, homoarginine, Lys, N-methyl-Lys,
      N, N-dimethyl-Lys, N, N, N-trimethyl-Lys or any
      unnatural basic amino acid; Xaa at residue 4 is
      des-Xaa, Ala, Val, Leu, Ile, Gly, Glu, Gla, Gln,
      Asp, Asn, Phe,
<220>
<221> PEPTIDE
<222> (4)..(5)
<223> Pro, hydroxy-Pro or any unnatural ardmatic amino
      acid; Xaa at residue 5 is des-Xaa, Thr, Ser, Asp,
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Glu, Gla, Gln, Gly, Val, Asp, Asn, Ala, Pro, hydroxy-Pro, Arg, ornithine, homoarginine, Lys, <220> <221> PEPTIDE <222> (5)..(8) <223> N-methyl-Lys, N, N-dimethyl-Lys, N, N, N-trimethyl-Lys or any unnatural basic amino acid; Xaa at residue 8 is Thr, Ser, Asp, Asn, Met, Val, Ala, Gly, Leu, Ile, Phe, any unnatural aromatic amino acid, <220> <221> PEPTIDE <222> (8)..(9) <223> Pro, hydroxy-Pro, Tyr, nor†Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr or any unnatural hydroxy containing amino acid; Xaa at residue 9 is Ile, Leu, Val, Ser, Thr, Gln, <220> <221> PEPTIDE <222> (9) <223> Asn, Asp, Arg, His, halo-His, Phe, any unnatural aromatic amino acid, homoardinine, ornithine, Lys, N-methyl-Lys, N,N-dimethyl-Lys, N,N-trimethyl-Lys, any unnatural basic amino acid, Tyr, nor-Tyr, <220> <221> PEPTIDE <222> (9)..(10) <223> mono-halo-Tyr, di-halo-Tyr, Otsulpho-Tyr, O-phospho-Tyr, nitro-Tyr or any unnatural hydroxy containing amino acid; Xaa at residue 10 is Pro, hyroxy-Pro, Ser, Thr, Ile, Asp, Leu, Val, Gly, Ala, Phe, <220> <221> PEPTIDE <222> (10)..(11) <223> any unnatural aromatic amino acid, Arg, ornithine,
homoarginine, Lys, N-methyl-Lys, N,N-dimethyl-Lys,
N,N,N-trimethyl-Lys or any unnatural basic amino acid; Xaa at residue 11 is Val, Ala, Gly, Ile, <220> <221> PEPTIDE <222> (11)..(13) <223> Leu, Asp, Ser, Thr, Pro, hydroxy-Aro, Arg, ornithine, homoarginine, Lys, N-methyl-Lys, N, N-dimethyl-Lys, N, N, N-trimethyl-Ays or any unnatural basic amino acid; Xaa at residue 13 is His, halo-His, <220> <221> PEPTIDE <222> (13) <223> Arg, homoarginine, ornithine, Lys, N-methyl-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any unnatural basic amino acid, Asn, Ala, Ser, Thr, Phe, Ile, Leu, Gly, Trp (D or L), neo-trp,

halo-Trp, any

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<220>
<221> PEPTIDE
<222> (13)..(14)
<223> unnatural aromatic \amino acid, Tyr, nor-Tyr,
      mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr,
      O-phospho-Tyr, nitro-Tyr or any unnatural hydroxy containing amino acid; Xaa at residue 14 is Leu,
      Gln, Val, Ile,
<220>
<221> PEPTIDE
<222> (14)
<223> Gly, Met, Ala, Lys, N-methyl-Lys,
      N, N-dimethyl-Lys, N, N, N_1^L trimethyl-Lys, Ser, Thr,
      Arg, homoarginine, ornithine, any unnatural basic
      amino acid, Asn, Glu, Gla, Gln, Phe, Trp (D or L),
      neo-Trp,
<220>
<221> PEPTIDE
<222> (14)..(15)
<223> halo-Trp or any unnatural aromatic amino acid; Xaa
      at residue 15 is Glu, Gla, Gln, Asn, Asp, Pro,
      hydroxy-Pro, Ser, Gly, Thr, Lys, N-methyl-Lys,
      N, N-dimethyl-Lys, N, N, N-trimethyl-Lys, Arg,
<220>
<221> PEPTIDE
<222> (15)
<223> homoarginine, ornithine, any unnatural basic amino acid, Phe, His, halo-His, any unnatural aromatic
      amino acid, Leu, Met, Gly, Ala, Tyr, nor-Tyr,
      mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr,
<220>
<221> PEPTIDE
<222> (15)..(16)
<223> O-phospho-Tyr, nitro-Tyr or any unnatural hydroxy
      containing amino acid; Xaa at residue 16 is His,
      halo-His, Asn, Thr, Ser, Ile, Val, Leu, Phe, any
      unnatural aromatic amino acid, Arg, homoarginine,
<220>
<221> PEPTIDE
<222> (16)
<223> ornithine, Lys, N-methyl-Lys, N,N-dimethyl-Lys,
      N, N, N-trimethyl-Lys, any unnatural basic amino
      acid, Tyr, nor-Try, mono-halo-Tyr, di-halo-Tyr,
      O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr or any
      unnatural
<220>
<221> PEPTIDE
<222> (16)..(17)
<223> hydroxy containing amino acid; Xaa at residue 17
      is Ser, Thr, Ala, Gln, Pro, hydroxy-Pro, Gly, Ile,
      Leu, Arg, ornithine, homoarginine, Lys,
      N-methyl-Lys, N, N-dimethyl-Lys,
      N,N,N-trimethyl-Lys or any
<220>
<221> PEPTIDE
<222> (17)..(18)
<223> unnatural basic amino acid; Xaa at residue√18 is
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Asn, Glu, Gla, Asp, Gly, His, halo-His, Ala, Leu, Gln, Arg, ornithine homoarginine, Lys, N-methyl-Lys, N, N-dimethyl-Lys, N, N, N-trimethyl-Lys, any <220> <221> PEPTIDE <222> (18)..(19) <223> unnatural basic amino acid, Tyr, nor-Tyr, mono-halo-Tyr, di-halo Tyr, O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr or any unnatural hydroxy containing amino acid; Xaa at residue 19 is Met, Ile, Thr, Ser, <220> <221> PEPTIDE <222> (19) <223> Val, Leu, Pro, hydroxy-Pro, Phe, any unnatural aromatic amino acid, Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr, any unnatural hydroxy containing amino <220> <221> PEPTIDE <222> (19)..(21) <223> Glu, Gla, Ala, His, halo-Hi\(\frac{1}{3}\), Arg, ornithine, homoarginine, Lys, N-methyl-Lys, N,N-dimethyl-Lys, N, N, N-trimethyl-Lys or any unnatural basic amino acid; Xaa at residue 21 is des-Xaa, Gly, Asp, Asn, <220> <221> PEPTIDE <222> (21)..(22) <223> Ala, Ile, Leu, Ser, Thr, His, halo-His, Arg, ornithine, homoarginine, Lys, Namethyl-Lys, N, N-dimethyl-Lys, N, N, N-trimethyl-Lys or any unnatural basic amino acid; Xaa at residue 22 is des-Xaa, Gly, <220> <221> PEPTIDE <222> (22) <223> Glu, Gla, Gln, Trp (D or L), neo, halo-Trp, any unnatural aromatic amino acid, Arg, ornithine, homoarginine, Lys, N-methyl-Lys, N,N-dimethyl-Lys, N, N, N-trimethyl-Lys or any unnatural basic amino acid. <220> <221> PEPTIDE <222> (23) <223> Xaa at residue 23 is des-Xaa, Ser, Tht, Val, Ile, Ala, Arg, ornithine, homoarginine, Lys N-methyl-Lys, N, N-dimethyl-Lys, N, N, N-trimethyl-Lys or any unnatural basic amino acid. <220> <221> PEPTIDE <222> (24) <223> Xaa at residue 24 is des-Xaa, Val, Asp, His, halo-His, Arg, ornithine, homoarginine, Lys,

N-methyl-Lys, N, N-dimethyl-Lys,

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N, N, N-trimethyl-Lys or any unnatural basic amino
      acid.
<220>
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<222> (25)..(26)
<223> Xaa at residue 25 is des-Xaa, Asn, Pro or
      hydroxy-Pro; Xaa at residue 26 is des-Xaa, Arg,
      ornithine, homoarginine, Lys, N-methyl-Lys,
      N, N-dimethyl-Lys, N, N, N-trimethyl-Lys or any
      unnatural basic amino
<220>
<221> PEPTIDE
<222> (26)..(28)
<223> acid; Xaa at residue 27 is des-Xaa, Ser or Thr;
      Xaa at residue 28 is des-Xaa, Leu, Ile or Val.
<400> 3
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Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa
<210> 4
<211> 14
<212> PRT
<213> Conus imperialis
<220>
<221> PEPTIDE
<222> (2)..(11)
<223> Xaa at residue 2 is Glu or gamma-darboxy-Glu; Xaa
      at residue 11 is Lys, N-methyl-Lys
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 4
Asp Xaa Cys Cys Ser Asp Ser Arg Cys Gly Xaa Asn Cys Leu
<210> 5
<211> 12
<212> PRT
<213> Conus imperialis
<220>
<221> PEPTIDE
<222> (10)
<223> Xaa at residue 10 is Trp (D or L) or halo-Trp.
<400> 5
Ala Cys Cys Ser Asp Arg Arg Cys Arg Xaa Arg Cys
<210> 6
<211> 13
<212> PRT
<213> Conus regius
<400> 6
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10
Phe Thr Cys Cys Arg Arg Gly Thr Cys Ser Gln His Cys
<210> 7
<211> 13
<212> PRT
<213> Conus regiu
<220>
<221> PEPTIDE
<222> (2)
<223> Xaa at residue \c 2 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<400> 7
Asp Xaa Cys Cys Arg Arg His Ala Cys Thr Leu Ile Cys
<210> 8
<211> 13
<212> PRT
<213> Conus regius
<220>
<221> PEPTIDE
<222> (2)..(8)
<223> Xaa at residue 2 is Tyr, nor Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr; Xaa at residues 7 and 8 is Pro or
      hydroxy-Pro.
<400> 8
Asp Xaa Cys Cys Arg Arg Xaa Xaa Cys Thr\Leu Ile Cys
<210> 9
<211> 13
<212> PRT
<213> Conus regius
<220>
<221> PEPTIDE
<222> (6)..(10)
<223> Xaa at residue 6 is Pro or hdroxy-Pro; Xaa\at
      residue 10 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<400> 9
Gly Cys Cys Ser Asp Xaa Arg Cys Arg Xaa Arg Cys Arg
<210> 10
<211> 13
<212> PRT
<213> Conus regius
<220>
<221> PEPTIDE
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11
<222> (7) .. (11)
<223> Xaa at redidue 7 is Pro or hydroxy-Pro; Xaa at
       residue 11\is Trp (D or L) or halo-Trp.
<400> 10
Gly Gly Cys Cys Se{f t} Asp Xaa Arg Cys Ala Xaa Arg Cys
<210> 11
<211> 17
<212> PRT
<213> Conus regius
<220>
<221> PEPTIDE
<222> (3)..(10)
<223> Xaa at residue 3 is Trp (D or L) or halo-Trp; Xaa
    at residue 9 is Glu or gamma-carboxy-Glu; Xaa at
    residue 10 is Pro or hydroxy-Pro.
<220>
<221> PEPTIDE
<222> (15)
<223> Xaa at residue 15 is 1\u00e4ys, N-methyl-Lys,
       N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 11
Ile Ala Xaa Asp Ile Cys Cys Self Xaa Xaa Asp Cys Asn His Xaa Cys
  1
                                            10
Val
<210> 12
<211> 12
<212> PRT
<213> Conus regius
<220>
<221> PEPTIDE
<222> (6)..(9)
<223> Xaa at residue 6 is Pro or hydroxy-Pro; Xaa at residue 9 is Lys, N-methyl-Lys, N,W-dimethyl-Lys
       or N, N, N-trimethyl-Lys.
<400> 12
Gly Cys Cys Ser Asp Xaa Arg Cys Xaa His Gl
<210> 13
<211> 14
<212> PRT
<213> Conus sponsalis
<220>
<221> PEPTIDE
<222> (5)..(11)
<223> Xaa at residues 5 and 11 is Pro or hydroxy-Pro;
       Xaa at residue 8 is Lys, N-methyl-Lys,
       N.N-dimethyl-Lys or N.N.n-trimethyl-Lys.
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12
<400> 13
Cys Cys Ser Asp Xaa Ala Cys Xaa Gln Thr Xaa Gly Cys Arg
<210> 14
<211> 13
<212> PRT
<213> Conus sponsalis
<220>
<221> PEPTIDE
<222> (3)..(5)
<223> Xaa at residue 3 is \Glu or gamma-carboxy-Glu; Xaa
      at residue 5 is Pro or hydroxy-Pro.
<400> 14
Cys Cys Xaa Asn Xaa Ala Cys Arg His Thr Gln Gly Cys
<210> 15
<211> 13
<212> PRT
<213> Conus sulcatus
<220>
<221> PEPTIDE
<222> (4)..(12)
<223> Xaa at residue 4 is Trp or halo-Trp; Xaa at
      residue 6 is Pro or hydroxy-Pro; Xaa at residue 12
      is Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr,
      O-sulpho-Tyr, O-phospho-Tyr or mitro-Tyr.
<400> 15
Gly Cys Cys Xaa His Xaa Ala Cys Gly Arg∥His Xaa Cys
<210> 16
<211> 14
<212> PRT
<213> Conus achatinus
<220>
<221> PEPTIDE
<222> (2)..(11)
<223> Xaa at residues 2 and 7 is Pro or hydroxy-Pro; Xaa
      at residue 11 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 16
Ala Xaa Cys Cys Asn Asn Xaa Ala Cys Val Xaa His Arg Cys
<210> 17
<211> 15
<212> PRT
<213> Conus bullatus
<220>
<221> PEPTIDE
<222> (2)..(12)
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<223> Xaa at residues 2 and \sqrt{8} is Pro or hydroxy-Pro; Xaa
      at residue 12 is Lys, W-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 17
Ala Xaa Gly Cys Cys Asn Asn Xaa Ala Cys Val Xaa His Arg Cys
                                      10
<210> 18
<211> 14
<212> PRT
<213> Conus bullatus
<220>
<221> PEPTIDE
<222> (1)..(11)
<223> Xaa at residues 1, 2 and 7 is Pro or hydroxy-Pro;
      Xaa at residue 11 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 18
Xaa Xaa Cys Cys Asn Asn Xaa Ala Cys Val Xaa His Arg Cys
<210> 19
<211> 16
<212> PRT
<213> Conus bullatus
<220>
<221> PEPTIDE
<222> (2)..(13)
<223> Xaa at residue 2 is Glu or gamma-carboky-Glu; Xaa
      at residue 6 is Trp or halo-Trp; Xaa at residues 8
      11 and 13 is Pro or hydroxy-Pro.
<400> 19
Asp Xaa Asn Cys Cys Xaa Asn Xaa Ser Cys Xaa Arg Xaa Arg Cys Thr
                                      10
<210> 20
<211> 13
<212> PRT
<213> Conus bullatus
<220>
<221> PEPTIDE
<222> (6)..(12)
<223> Xaa at residues 6 and 7 is Pro or hydroxy-Pro; \Xaa
      at residue 12 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<400> 20
Gly Cys Cys Ser Arg Xaa Xaa Cys Ala Val Leu Xaa Cys
<210> 21
<211> 13
<212> PRT
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14
<213> Conus circumcisus
<220>
<221> PEPTIDE
<222> (6)
<223> Xaa at residue 6 is Pro or hydroxy-Pro.
Gly Cys Cys Gly Asn Xaa Asp Cys Thr Ser His Ser Cys
<210> 22
<211> 16
<212> PRT
<213> Conus stercusmuscarum
<220>
<221> PEPTIDE
<222> (6)..(11)
<223> Xaa at residue 6 is Pro or hydroxy-Pro; Xaa at
      residue 11 is Glu or gamma-carboxy-Glu.
<400> 22
Gly Cys Cys Ser Asn Xaa Val Cys Has Leu Xaa His Ser Asn Met Cys
                                      10
<210> 23
<211> 17
<212> PRT
<213> Conus obscurus
<220>
<221> PEPTIDE
<222> (6)..(15)
<223> Xaa at residue 6 is Pro or hydroxy-Pro Xaa at
      residue 14 is Glu or gamma-carboxy-Glu∤ Xaa at
      residue 15 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr\or
      nitro-Tyr.
<400> 23
Gly Cys Cys Ser Asn Xaa Val Cys Arg Gln Asn Asn Ala Xaa Xaa Cys
                                      10
Arg
<210> 24
<211> 18
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 1, 7 and 14 is Pro or hydroxy-Pro;
      Xaa at residue 15 is Glu or gamma-carboxy-Glu.
<400> 24
Xaa Gln Cys Cys Ser His Xaa Ala Cys Asn Val Asp His Xaa Xaa I \)e
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15
    Arg
<210> 25
<211> 18
<212> PRT
<213> Conus Padiatus
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 1, 7 and 14 is Pro or hydroxy-Pro;
Xaa at residues 2 and 15 is Glu or
      gamma-carboxy-Ġlu.
<400> 25
Xaa Xaa Cys Cys Ser His Xaa Ala Cys Asn Val Asp His Xaa Xaa Ile
Cys Arg
<210> 26
<211> 18
<212> PRT
<213> Conus radiatus
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 1, 7 and 14 is Pro or hydroxy-Pro;
      Xaa at residue 15 is Glu or gamma—carboxy-Glu.
<400> 26
Xaa Gln Cys Cys Ser His Xaa Ala Cys Asn Val Asp His Xaa Xaa Ile
Cys Asp
<210> 27
<211> 18
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 1, 7 and 14 is Pro or hydroxy-Pro;
      Xaa at residue 15 is Glu or gamma-carboxy-Glu.
<400> 27
Xaa Arg Cys Cys Ser His Xaa Ala Cys Asn Val Asp His Xaa Xaa Ile
Cys Arg
<210> 28
<211> 18
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16
<212> PRT
<213 Conus omaria
<220>
<221> PEPTIDE
<222> (1) ...(14)
<223> Xaa at residues 1, 7 and 14 is Pro or hydroxy-Pro.
<400> 28
Xaa Gln Cys\Cys Ser His Xaa Ala Cys Asn Val Asp His Xaa Gly Ile
Cys Arg
<210> 29
<211> 18
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues \c 1, 7 and 14 is Pro or hydroxy-Pro;
      Xaa at residue 15\is Glu or gamma-carboxy-Glu.
<400> 29
Xaa Gln Cys Cys Ser His Xaa Ala Cys Asn Val Asp His Xaa Xaa Thr
                   5
                                        10
Cys Arg
<210> 30
<211> 18
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 1, 7 and 14 is Rro or hydroxy-Pro;
      Xaa at residue 15 is Glu or gamma-carboxy-Glu.
<400> 30
Xaa Gln Cys Cys Ser His Xaa Ala Cys Asn 🕻 al Asp His Xaa Xaa Val
Cys Arg
<210> 31
<211> 18
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 1, 7 and 14 is Pro or hydroxy-Pro
Xaa at residue 15 is Glu or gamma-carboxy-Glu.
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17
<400> 31
Xaa Gln Cys ⟨ys Ser His Xaa Ala Cys Asn Ile Asp His Xaa Xaa Ile
Cys Arg
<210> 32
<211> 21
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues\1, 7 and 14 is Pro or hydroxy-Pro;
      Xaa at residue 15 is Glu or gamma-carboxy-Glu.
<400> 32
Xaa Gln Cys Cys Ser His Xaa Ala Cys Asn Val Asp His Xaa Xaa Ile
                                      10
Cys Arg Arg Arg Arg
<210> 33
<211> 17
<212> PRT
<213> Conus betulinus
<220>
<221> PEPTIDE
<222> (7)..(15)
<223> Xaa at residues 7 and 14 is Pro or hydroxy-Pro;
      Xaa at residue 15 is Glu or gamma-carboxy-Glu.
<400> 33
Gly Gly Cys Cys Ser His Xaa Ala Cys Ala Val Asn His Xaa Xaa Leu
Cys
<210> 34
<211> 16
<212> PRT
<213> Conus betulinus
<220>
<221> PEPTIDE
<222> (6)..(14)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro:
      Xaa at residue 14 is Glu or gamma-carboxy-Glu.
<400> 34
Gly Cys Cys Ser His Xaa Ala Cys Ser Val Asn His Xaa Xaa Leu Cys
                                      10
<210> 35
<211> 16
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18
      PRT
<212>
<213> Conus dalli
<220>
<221> PEPTIDE
<222> (6) \. (14)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro;
      Xaa at residue 14 is Glu or gamma-carboxy-Glu.
<400> 35
Gly Cys Cys Sèr His Xaa Ala Cys Asn Val Asp His Xaa Xaa Ile Cys
<210> 36
<211> 19
<212> PRT
<213> Conus obscurús
<220>
<221> PEPTIDE
<222> (6)..(18)
<223> Xaa at residues & and 15 is Pro or hydroxy-Pro;
      Xaa at reside 11 \u00e4s Lys, N,-methyl-Lys,
      N,N-dimethyl-Lys or N,N,N-trimethyl-Lys; Xaa at residues 14 and 18 is Glu or gamma-carboxy-Glu.
<400> 36
Gly Cys Cys Ser His Xaa Ala Cys Ser Gly Xaa Thr Gln Xaa Xaa Cys
Arg Xaa Ser
<210> 37
<211> 18
<212> PRT
<213> Conus tulipa
<220>
<221> PEPTIDE
<222> (1)..(14)
<223> Xaa at residues 1, 6 and 13 is Pro or hydroxy-Pro;
      Xaa at residue 14 is Glu or gamma-carboxy-Glu.
<400> 37
Xaa Cys Cys Ser His Xaa Ala Cys Ser Gly Asn Asn Xaa Xaa Phe Cys
                                        10
Arg Gln
<210> 38
<211> 18
<212> PRT
<213> Conus tulipa
<220>
<221> PEPTIDE
<222> (6)..(14)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro;
      Xaa at residue 14 is Glu or gamma-carboxy-Glu.
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19
<400> 38
Gly Cys Cys Ser His Xaa Ala Cys Ser Gly Asn Asn Xaa Xaa Phe Cys
Arg Gln
<210> 39
<211> 16
<212> PRT
<213> Conus pennaceus
<220>
<221> PEPTIDE
<222> (6)..(15)
<223> Xaa at residues 6, 7 and 13 is Pro or hydroxy-Pro;
    Xaa at residue 15 is Tyr, nor-Tyr, mono-halo-Tyr,
        di-halo-Tyr \ O-sulpho-Tyr, O-phospho-Tyr or
       nitro-Tyr.
<400> 39
Gly Cys Cys Ser His\Xaa Xaa Cys Ala Met Asn Asn Xaa Asp Xaa Cys
<210> 40
<211> 16
<212> PRT
<213> Conus pennaceus
<220>
<221> PEPTIDE
<222> (6)..(15)
<223> Xaa at residuew 6, 7 and 13 is Pro or hydroxy-Pro;
Xaa at residue 15 is Tyr, nor-Tyr, mono-halo-Tyr,
di-halo-Tyr, O-sulpho Tyr, O-phospho-Tyr or
       nitro-Tyr.
<400> 40
Gly Cys Cys Ser His Xaa Xaa Cys Phe Leu Asn Asn Xaa Asp Xaa Cys
                                            . 10
<210> 41
<211> 17
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6, 7 and 13 is Pro or hydroxy-Pro;
    Xaa at residue 11 is Lys, N-methyl-Lys,
       N, N-dimethyl-Lys or N.N.N-trimethy 1-Lys.
<400> 41
Gly Cys Cys Ser Asn Xaa Xaa Cys Ile Ala Xaa\Asn Xaa His Met Cys
Gly
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20
<210>
<211> 16
<212> PR'X
<213> Con\(\dagger\)s distans
<220>
<221> PEPTIDE
<222> (6) .. (13)
<223> Xaa at residues 6, 7 and 13 is Pro or hydroxy-Pro.
<400> 42
Gly Cys Cys Ser Àsn Xaa Xaa Cys Ala His Asn Asn Xaa Asp Cys Arg
<210> 43
<211> 17
<212> PRT
<213> Conus tulipa
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro.
<400> 43
Gly Cys Cys Ser Asn Xaa Ala Cys Ala Gly Asn Asn Xaa His Val Cys
                                      10
Arg
<210> 44
<211> 16
<212> PRT
<213> Conus dalli
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro.
<400> 44
Gly Cys Cys Ser Arg Xaa Ala Cys Ile Ala Asn Ash Xaa Asp Leu Cys
                                       10
                                                            15
<210> 45
<211> 20
<212> PRT
<213> Conus circumcisus
<220>
<221> PEPTIDE
<222> (6)..(14)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro;
      Xaa at residues 11 and 14 is Glu or
      gamma-carboxy-Glu.
<400> 45
Gly Cys Cys Ser Asn Xaa Val Cys His Val Xaa His Xaa Xaa Leu
                                                               Cys
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Ard Arg Arg Arg
<210> 4
<211> 18
<212> PRT
<213> Conus sulcatus
<220>
<221> PEPTINE
<222> (7)..(\5)
<223> Xaa at \ residues 7, 12 and 14 is Pro or
      hydroxy-Pro; Xaa at residue 11 is Lys,
      N-methyl\Lys, N,N-dimethyl-Lys or
      N, N, N-trihethyl-Lys; Xaa at residue 15 is. Glu or
      gamma-carboxy-Glu.
<400> 46
Gly Gly Cys Cys Set Phe Xaa Ala Cys Arg Xaa Xaa Arg Xaa Xaa Met
Cys Gly
<210> 47
<211> 18
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 1, 7 and 14 is Pro or hydroxy-Pro;
Xaa at residues 2 and 15 is Glu or
      gamma-carboxy-Glu.
<400> 47
Xaa Xaa Cys Cys Ser Asp Xaa Arg Cys Asn Ser Ser His Xaa Xaa Leu
                                        10
Cys Arg
<210> 48
<211> 18
<212> PRT
<213> Conus dalli
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 1, 7 and 14 is Pro or hydroxy-pro;
      Xaa at residue 15 is Glu or gamma-carboxy-Glu.
<400> 48
Xaa Gln Cys Cys Ser Asp Xaa Arg Cys Asn Val Gly Hits Xaa Xaa Leu
Cys Gly
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22
<210> 49
<211> 18
<212> PRT
<213>\Conus dalli
<220>
<221> PEPTIDE
<222> (1)\(\). (15)
<223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at
      residues 7 and 14 is Pro or hydroxy-Pro; Xaa at
      resid\mue 15 is Glu or gamma-carboxy-Glu.
<400> 49
Xaa Val Cys C_{
m VS} Ser Asp Xaa Arg Cys Asn Val Gly His Xaa Xaa Ile
Cys Gly
<210> 50
<211> 16
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 \lambda 7 and 13 is Pro or hydroxy-Pro.
<400> 50
Gly Cys Cys Ser Arg Xaa Xaa Cys Ile Ala Asn Asn Xaa Asp Leu Cys
                                       10
<210> 51
<211> 18
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 1 and 14 is Prd or hydroxy-Pro;
      Xaa at residue 15 is Glu or gamma-carboxy-Glu.
<400> 51
Xaa Gln Cys Cys Ser His Leu Ala Cys AsnigveeVal Asp His Xaa Xaa Ile
Cys Arg
<210> 52
<211> 19
<212> PRT
<213> Conus sulcatus
<220>
<221> PEPTIDE
<222> (5)..(14)
<223> Xaa at residue 5 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
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nitro-Tyr Xaa at residue 13 is Pro or hydroxy-Pho; Xaa at residue 14 is Glu or gamma-carb\pxy-Glu. <220> <221> PEPTIDE <222> (18) <223> Xaa at residue 18 is Trp or halo-Trp. <400> 52 Gly Cys Cys Ser Xaa \Phe Asp Cys Arg Met Met Phe Xaa Xaa Met Cys 10 Gly Xaa Arg <210> 53 <211> 18 <212> PRT <213> Conus sulcatus <220> <221> PEPTIDE <222> (11)..(12) <223> Xaa at residue 11 is Lys, N-methyl-Lys, N, N-dimethyl-Lys or N, N, N-trimethyl-Lys; Xaa at residue 12 is Tyr, nor Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr. <220> <221> PEPTIDE <222> (14)..(15) <223> Xaa at residue 14 is Pro or\hydroxy-Pro; Xaa at residue 15 is Glu or gamma-carboxy-Glu. <400> 53 Gly Gly Cys Cys Ser Phe Ala Ala Cys Arg Xaa Xaa Arg Xaa Xaa Met Cys Gly <210> 54 <211> 20 <212> PRT <213> Conus sulcatus <220> <221> PEPTIDE <222> (7)..(15) <223> Xaa at residue 7 is Pro or hydroxy-Pro; Xaa at residue 10 is Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr; Xaa at residue 15 is Glu or gamma-carboxy-Glu. <400> 54 Gly Gly Cys Cys Phe His Xaa Val Cys Xaa Ile Asn Leu\Leu Xaa Met Cys Arg Gln Arg

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20
<210>
<211>
      \19
<212> RRT
<213> Conus betulinus
<220>
<221> PEPTIDE
<222> (7) \. (15)
<223> Xaa at residues 7, 11 and 14 is Tyr, nor-Tyr,
      mono halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-pho-Tyr; Xaa at residues 8, 9 and 15 is Pro
      or hydroxy-Pro.
<220>
<221> PEPTIDE
<222> (12)..(1/6)
<223> Xaa at residues 12 and 16 is Glu or gamma-carboxy-Glu.
<400> 55
Ser Ala Thr Cys \Deltays Asn Xaa Xaa Xaa Cys Xaa Xaa Thr Xaa Xaa Xaa
Ser Cys Leu
<210> 56
<211> 17
<212> PRT
<213> Conus betulinus
<220>
<221> PEPTIDE
<222> (5)..(13)
<223> Xaa at residues 5 and 12 is Tyr, no-Tyr,
      mono-halo-Tyr, di-halo\Tyr, O-sulpho-Tyr,
      O-phospho-Tyr or nitro-Tyr; Xaa at residues 6, 7
      and 13 is Pro or hydroxy-Pro.
<220>
<221> PEPTIDE
<222> (10)..(14)
<223> Xaa at residues 10 and 14 is Glu or
      gamma-carboxy-Glu.
<400> 56
Ala Cys Cys Ala Xaa Xaa Xaa Cys Phe 📉 aa Ala Xaa Xaa Arg Cys
Leu
<210> 57
<211> 19
<212> PRT
<213> Conus betulinus
<220>
<221> PEPTIDE
```

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<222> (3) \( . (16) \)
<223> Xaa at residues 3, 12 and 16 is Glu or
      gamma\carboxy-Glu; Xaa at residues 6, 7, 11 and 14
      is Tyr nor-Tyr, mono-halo-Tyr, di-halo-Tyr,
      O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr.
<220>
<221> PEPTIDE
<222> (8)..(15)
<223> Xaa at residues 8, 9 and 15 is Pro or hydroxy-Pro.
<400> 57
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Ile Cys Leu
<210> 58
<211> 227
<212> DNA
<213> Conus magus
<220>
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<222> (1)..(189)
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tto cot toa gat ogt goa tot gat ggo agg aat goo goa goo aac gac
                                                                   96
Phe Pro Ser Asp Arg Ala Ser Asp Gly Axg Asn Ala Ala Ala Asn Asp
aaa gcg tct gac gtg atc acg ctg gcc ctc 'aag gga tgc tgt tcc aac
                                                                   144
Lys Ala Ser Asp Val Ile Thr Leu Ala Leu Bys Gly Cys Cys Ser Asn
                                                                   189
cct gtc tgt cac ttg gag cat tca aac ctt tgt ggt aga aga cgc
Pro Val Cys His Leu Glu His Ser Asn Leu Cys Gly Arg Arg Arg
                                                                   227
tgatgctcca ggaccctctg aaccacgacg ttcgagca
<210> 59
<211> 63
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<213> Conus magus
<400> 59
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Pro Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Ala Asn Asp
Lys Ala Ser Asp Val Ile Thr Leu Ala Leu Lys Gly Cys Cys Ser Asn
Pro Val Cys His Leu Glu His Ser Asn Leu Cys Gly Arg Arg Arg'
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ttc act tca gat cgt gca tct gat ggc agg aag gac gca gcg tct ggc Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Lys Asp Ala Ala Ser Gly 20 25 30	96												
ctg att gct ctg acc atg aag gga tgc tgt tct tat cct ccc tgt ttc Leu Ile Ala Leu Thr Met Lys Gly Cys Cys Ser Tyr Pro Pro Cys Phe 35 40 45	144												
gcg act aat cca gad tgt ggt cga cgc tgatgctcca ggaccctctg Ala Thr Asn Pro Asp Cys Gly Arg Arg 50 55	194												
aaccacgacg t													
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Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Lys Asp Ala Ala Ser Gly 25 30													
Leu Ile Ala Leu Thr Met Lys Gly Cys Cys Ser Tyr Pro Pro Cys Phe 35													
Ala Thr Asn Pro Asp Cys Gly Arg Arg Arg 50													
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ttc tct tca ggt cgt agt aca ttt cgt ggc agg aat gcc gca gcc aaa Phe Ser Ser Gly Arg Ser Thr Phe Arg Gly Arg Asn Ala Ala Ala Lys 20 25 30	96												
gcg tct ggc ctg gtc agt ctg act gac agg aga cca gaa tgc tgt agt Ala Ser Gly Leu Val Ser Leu Thr Asp Arg Arg Pro Glu Cys Cys Ser 35	144												
gat cct cgc tgt aac tcg agt cat cca gaa ctt tgt ggt gga aga cgc Asp Pro Arg Cys Asn Ser Ser His Pro Glu Leu Cys Gly Gly Arg Arg 50 55 60	192												
tgatgctcca ggaccctctg aaccacgacg t	223												
(212)													

<210> 65

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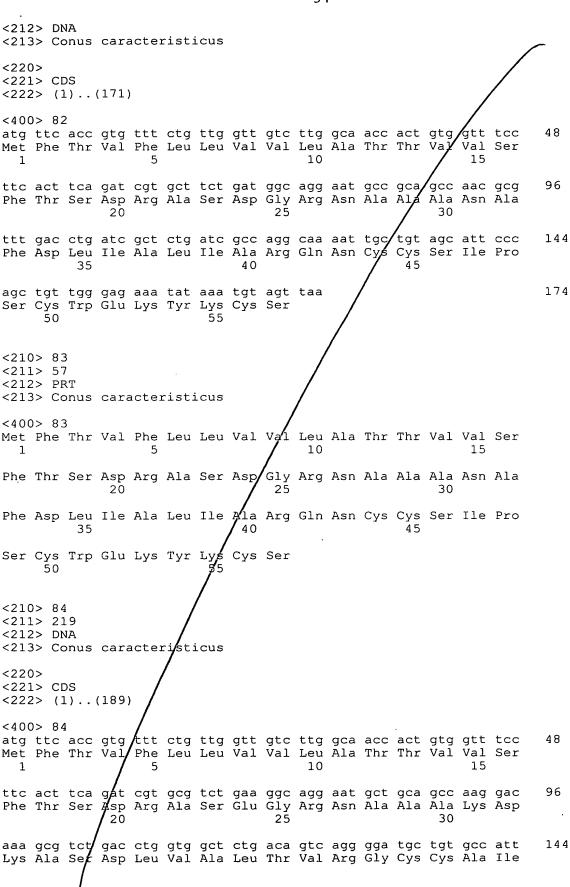
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Phe Thr Ser Gly Arg Ser Thr Phe Arg Gly Arg Asn Ala Ala Ala Lys
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Ala Ser Gly Leu Val Ser Leu Thr Asp Arg Arg Pro Gln Cys Cys Ser
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Phe	Asp	Leu 35	Ile	Ser	Ser	Ile	Val	Arg	Lys	Gly	Cys	Cys 45	Ser	Asn	Pro	
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cat cot god tgt gog gtg aat dat cot gag gtt tgt ggd tgaagadgdt His Pro Ala Cys Ala Val Asn His Pro Glu Leu Cys Gly 55

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His Pro Ala Cys Ser Val Asn Nis Pro Glu Leu Cys Gly Arg Arg Arg 50 55 60	
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cct ccc tgt tac gag gct tat cca gaa att tgt ctg taacgtgaat Pro Pro Cys Tyr Glu Ala Tyr Pro Glu Ile Cys Leu 50 55 60	190
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<211> 207

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ttc ac Phe Th															96
ctg at Leu Il															144
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Leu Il	e Ala 35	Leu	Thr	Ile	Lys	Gly 40	Cys	gas	Ser	Asp	Pro 45	Arg	Cys	Asn	
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ttc ac Phe Th															96
aga tt Arg Le	g gtg u Val 35	tct Ser	ctc Leu	cct Pro	cag Gln	atc Ile 40	gcc Ala	cat His	gct Ala	gac Asp	tgt Cys 45	tgt Cys	tcc Ser	gat Asp	144
cct gc	c tgc	aag	cag	acg	ccc	ggt	tgt	cgt	taaa	agac	gct (gctg	ckcc	ag	194

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25

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1 10 15

ttc act tca gat cgt gca ttt cht ggc agg aat gcc gca gcc aaa gag 96
Phe Thr Ser Asp Arg Ala Phe Ang Gly Arg Asn Ala Ala Ala Lys Glu
20 30

tct ggc ctg gtc ggt ctg acc gac aag acg cga gga tgc tgt tct cat 14. Ser Gly Leu Val Gly Leu Thr Asp Lys Thr Arg Gly Cys Cys Ser His 40

cct gcc tgt aac gta gat cat cca daa att tgt ggt tgaagacgct 190
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220

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Ser Gly Leu Val Gly Leu Thr Asp Lys Thr Art Gly Cys Cys Ser His

Pro Ala Cys Asn Val Asp His Pro Glu Ile Cys Gly
50 55

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<211> 208

<212> DNA

<213> Conus dalli

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tct ggc ctg gtc ggt ctg acc gac aag agg caa gta tgc tgt agt gat Ser Gly Leu Val Gly Leu Thr Asp Lys Arg Gln Val Cys Cys Ser Asp 35 40 45	144
cct cgc tgt aac gta ggt cat cca gaa att tgt ggt gga aga cgc Pro Arg Cys Asn Val Gly His Pro Glu Ile Cys Gly Gly Arg Arg 50 55 60	189
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<210> 138

<211> 208

<212> DNA

<213> Conus achatinus

<220>

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<222> (1)..(180)

<400> 138

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Phe Pro Ser Asp Ser Ala Ser Gly Gly Arg Asp Asp Glu Ala Lys Asp

gaa agg tct gac atg tac gaa ttg aaa cgg aat gga cgc tgt tgc cat 144 Glu Arg Ser Asp Met Tyr Glu Leu Lys Arg Asn Gly Arg Cys Cys His

cct gcc tgt ggt ggc aaa tac gtt aaa tgt gga cgc tgatgctcca 190
Pro Ala Cys Gly Gly Lys Tyr Val Lys Cys Gly Arg
50 60

ggaccetete gaaccacg 208

<210> 139

<211> 60

<212> PRT

<213> Conus achatinus

<400> 139

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Glu Arg Ser Asp Met Tyr Glu Leu Lys Arg Asn Gly Arg Cys Cys His
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Pro Ala Cys Gly Gly Lys Tyr Val Lys Cys Gly Arg 50 55 60

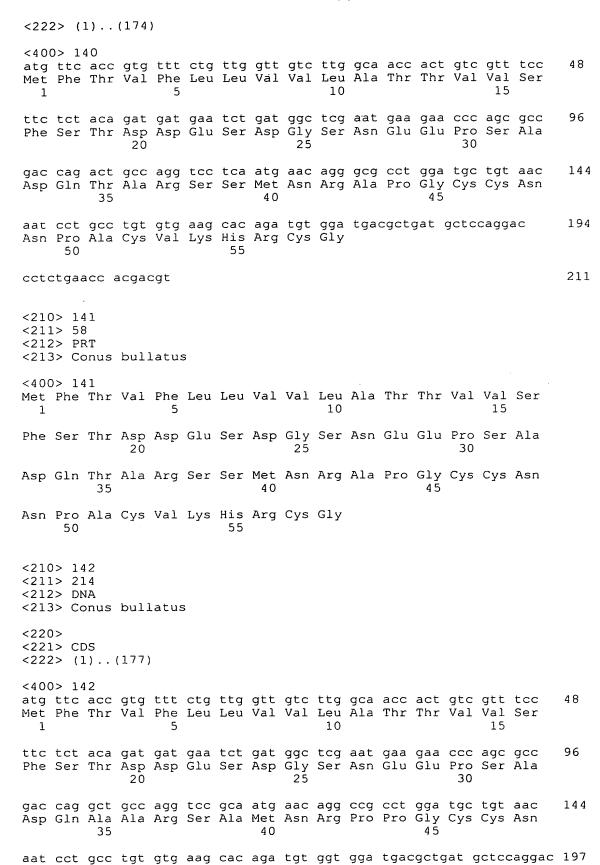
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<220>





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Phe Pro Ser Asp Arg Asp Ser Asp Gly Ala Asp Ala Glu Ala Ser Asp

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aaa gcg tct gac gtg gtc acg ctg gtc ctc aag gga tgc tgt tcc acc Lys Ala Ser Asp Val Val Thr Leu Val Leu Lys Gly Cys Cys Ser Thr 144

190 cct ccc tgt gct gtg ctg tat tgt ggt aga aga cgc tgatgctcca Pro Pro Cys Ala Val Leu Tyr Cys Gly Arg Arg Arg

ggaccctctg aaccacgacg t 211

<210> 147

<211> 60

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<213> Conus bullatus

<400> 147

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Pro Pro Cys Ala Val Leu Tyr Cys Gly Arg Arg Arg

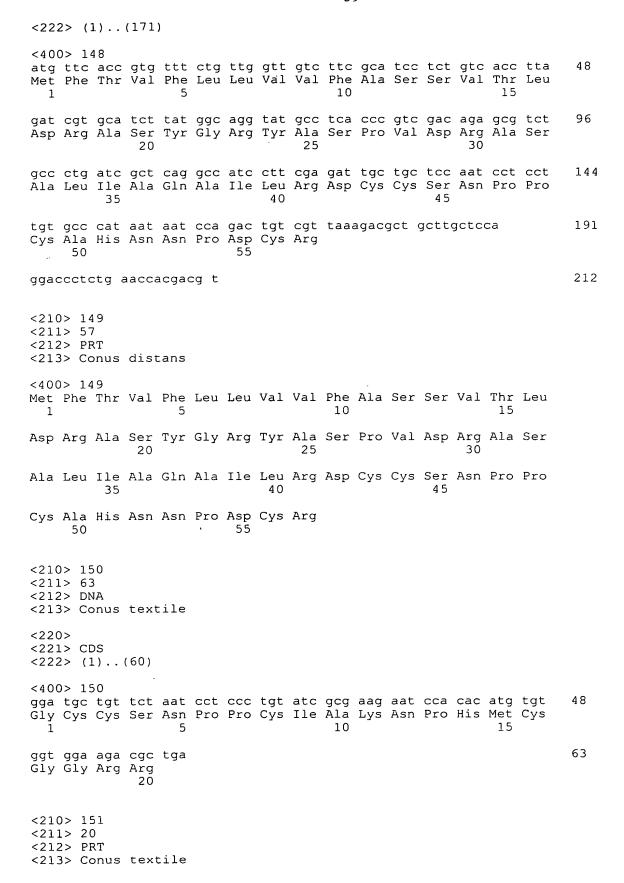
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<212> DNA

<213> Conus distans

<220>



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Gly Gly Arg Arg
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                                      10
  1
ttc cct tca gat cgt gca tct gat ggc agg aat gcc gca gcc aac gac
Phe Pro Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Ala Asn Asp
             20
aaa gcg tct gac gtg atc acg ctg gcc ctc aag gga tgc tgt tcc aac
                                                                    144
Lys Ala Ser Asp Val Ile Thr Leu Ala Leu Lys Gly Cys Cys Ser Asn
                              40
         35
cct gtc tgt cac ttg gag cat tca aac ctt tgt ggt aga aga cgc
                                                                    189
Pro Val Cys His Leu Glu His Ser Asn Leu Cys Gly Arg Arg Arg
tgatgctcca ggaccctctg aaccacgacg t
                                                                    220
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Pro Val Cys His Leu Glu His Ser Asn Leu Cys Gly Arg Arg Arg
     50
<210> 154
<211> 15
<212> PRT
<213> Conus musicus
<220>
<221> PEPTIDE
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<223> Xaa at residues 4, 11 and 12 is Tyr, nor-Tyr,
      mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr. Xaa at residue 6 is
      Pro or hydroxy-Pro.
<220>
<221> PEPTIDE
<222> (9)..(15)
<223> Xaa at residues 9, 10 and 15 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys; Xaa at
      residue 14 is Trp (D or L) or halo-Trp.
<400> 154
Gly Cys Cys Xaa Asn Xaa Val Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa
                                       10
<210> 155
<211> 16
<212> PRT
<213> Conus purpurascens
<220>
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<222> (1)..(3)
<223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at
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      residues 3 and 9 is Pro or hydroxy-Pro.
<220>
<221> PEPTIDE
<222> (13)
<223> Xaa at residue 13 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 155
Xaa Xaa Xaa Gly Cys Cys Arg His Xaa Ala Cys Gly Xaa Asn Arg Cys
  1
<210> 156
<211> 13
<212> PRT
<213> Conus musicus
<220>
<221> PEPTIDE
<222> (5)..(11)
<223> Xaa at residues 5 and 11 is Pro or hydroxy-Pro.
<400> 156
Cys Cys Ala Asp Xaa Asp Cys Arg Phe Arg Xaa Gly Cys
                                       10
<210> 157
<211> 17
<212> PRT
<213> Conus musicus
<220>
<221> PEPTIDE
<222> (4)..(13)
<223> Xaa at residues 4 and 13 is Tyr, nor-Tyr,
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mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr,
      O-phospho-Tyr or nitrb-Tyr; Xaa at residues 6 and
      10 is Pro or hydroxy-Pro.
<220>
<221> PEPTIDE
<222> (9)..(17)
<223> Xaa at residues 9 and 14 is Trp (D or L) or
      halo-Trp; Xaa at residues 11 and 17 is Lys,
      N-methyl-Lys, N, N-dimethyl-Lys or
      N, N, N-trimethyl-Lys.
<400> 157
Gly Cys Cys Xaa Asn Xaa Ser Cys \Xaa Xaa Xaa Thr Xaa Cys Ser Xaa
Xaa
<210> 158
<211> 13
<212> PRT
<213> Conus musicus
<220>
<221> PEPTIDE
<222> (5)..(8)
<223> Xaa at residue 5 is Pro or hydroxy-Pro; Xaa at residue 8 is Lys, N-methyl-Lys, W, N-dimethyl-Lys
      or N, N, N-trimethyl-Lys.
<220>
<221> PEPTIDE
<222> (9)..(11)
<223> Xaa at residue 9 is Glu or gamma-carboxy-Glu; Xaa
      at residue 11 is Tyr, nor-Tyr, mond-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<400> 158
Cys Cys Ser Asn Xaa Thr Cys Xaa Xaa Thr Xaa Gly Cys
<210> 159
<211> 13
<212> PRT
<213> Conus musicus
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<221> PEPTIDE
<222> (5)..(11)
<223> Xaa at residues 5 and 11 is Pro or hydroxy+Pro;
      Xaa at residue 8 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 159
Cys Cys Ala Asn Xaa Ile Cys Xaa Asn Thr Xaa Gly Cys
<210> 160
<211> 13
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<212> PRT
<213> Conus musicus
<220>
<221> PEPTIDE
<222> (5)..(8)
<223> Xaa at re%idue 5 is Pro or hydroxy-Pro; Xaa at
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      or N, N, N-trimethyl-Lys.
<220>
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<222> (9)..(11)
<223> Xaa at residue\9 is Glu or gamma-carboxy-Glu; Xaa
      at residue 11 it Tyr, mono-halo-Tyr, di-halo-Tyr,
      O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr.
<400> 160
Cys Cys Asn Asn Xaa Thr Cys Xaa Xaa Thr Xaa Gly Cys
                   5
                                       10
<210> 161
<211> 13
<212> PRT
<213> Conus musicus
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<222> (5)..(8)
<223> Xaa at residue 5 is Pro or hydroxy-Pro; Xaa at
      residue 8 is Lys, N-methyl-Lys, N,N-dimethyl-Lys
      or N,N,N-trimethyl-Lys.
<220>
<221> PEPTIDE
<222> (9)..(11)
<223> Xaa at residue 9 is Glu or gamma carboxy-Glu; Xaa
      at residue 11 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<400> 161
Cys Cys Ser Asn Xaa Val Cys Xaa Xaa Thr Xaa Gly Cys
                                       10
<210> 162
<211> 17
<212> PRT
<213> Conus betulinus
<220>
<221> PEPTIDE
<222> (6)..(14)
<223> Xaa at residue 6 is Tyr, nor-Tyr, mono-halo-T\( \frac{1}{2}\)r,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr; Xaa at residues 7, 8 and 14 is Pro \alphar
      hydroxy-Pro.
<220>
<221> PEPTIDE
<222> (15)
<223> Xaa at residue 15 is Lys, N-methyl-Lys,
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N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 162
Gly Gly Cys Cys√Ser Xaa Xaa Xaa Cys Ile Ala Ser Asn Xaa Xaa Cys
                                       10
Gly
<210> 163
<211> 15
<212> PRT
<213> Conus lividus
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro.
<400> 163
Gly Cys Cys Ser His Xaa Val Cys Ser Ala Met Ser Xaa Ile Cys
                                      10
<210> 164
<211> 15
<212> PRT
<213> Conus musicus
<220>
<221> PEPTIDE
<222> (4)..(12)
<223> Xaa at residues 4 and 12 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys; Xaa at
      residue 6 is Pro or hydroxy-Aro.
<220>
<221> PEPTIDE
<222> (7)..(14)
<223> Xaa at residues 7 and 14 is Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<400> 164
Gly Cys Cys Xaa Asn Xaa Xaa Cys Gly Ala $er Xaa Thr Xaa Cys
                                      10
<210> 165
<211> 15
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (5)..(13)
<223> Xaa at residue 5 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr; Xaa at residues 6, 7 and 13 is Pro or
      hydroxy-Pro.
<400> 165
Gly Cys Cys Ser Xaa Xaa Xaa Cys Phe Ala Thr Asn X{f a}a Asp Cys
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<210> 166
<211> 17
<212> PRT
<213> Conus \radiatus
<220>
<221> PEPTIDE
<222> (6)..(14)
<223> Xaa at residue 6 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr; Xaa at residues 7, 8 and 14 is Pro or
      hydroxy-Prd
<400> 166
Gly Gly Cys Cys Se\eta Xaa Xaa Xaa Cys Ile Ala Asn Asn Xaa Leu Cys
Ala
<210> 167
<211> 17
<212> PRT
<213> Conus radiatus
<220>
<221> PEPTIDE
<222> (6)..(14)
hydroxy-Pro.
<400> 167
Gly Gly Cys Cys Ser Xaa Xaa Cys Ile Ala Asn Asn Xaa Phe Cys
                                     10
Ala
<210> 168
<211> 16
<212> PRT
<213> Conus virgo
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6, 7 and 13 is Pro or hydroxy-Pro.
<400> 168
Asp Cys Cys Ser Asn Xaa Xaa Cys Ser Gln Asn Asn Xaa Asp Cys Met
<210> 169
<211> 16
<212> PRT
<213> Conus virgo
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66
<220>
<221> PEPT\ DE
<222> (6).\(13)
<223> Xaa at residues 6, 7 and 13 is Pro or hydroxy-Pro.
<400> 169
Asp Cys Cys Ser Asn Xaa Xaa Cys Ala His Asn Asn Xaa Asp Cys Arg
<210> 170
<211> 20
<212> PRT
<213> Conus achatinus
<220>
<221> PEPTIDE
<222> (1)..(14)
<223> Xaa at residues 1, 11 and 14 is Glu or gamma-carboxy-Glu; Xaa at residue 6 is Pro or
      hydroxy-Pro.
<400> 170
Xaa Cys Cys Thr Asn Xa^1a Val Cys His Ala Xaa His Gln Xaa Leu Cys
Ala Arg Arg Arg
              20
<210> 171
<211> 16
<212> PRT
<213> Conus achatinus
<220>
<221> PEPTIDE
<222> (6)..(10)
<223> Xaa at residue 6 is Pro or hydroxy-Pro; Xaa at
      residue 10 is Glu or gamma-carboxy-Glu. -
Gly Cys Cys Ser Asn Xaa Val Cys His Leu Xaa His Ser Asn Leu Cys
<210> 172
<211> 20
<212> PRT
<213> Conus achatinus
<220>
<221> PEPTIDE
<222> (1)..(14)
<223> Xaa at residues 1, 11 and 14 is Glu or
      gamma-carboxy-Glu; Xaa at residue 6 is Pro or
      hydroxy-Pro.
Xaa Cys Cys Thr Asn Xaa Val Cys His Val Xaa His Glh Xaa Leu Cys
Ala Arg Arg Arg
              20
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<210>
<211> 17
<212> PR'
<213> Con\us ammiralis
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at tesidue 1 is Gln or pyro-Glu; Xaa at
      residues 2 and 15 is Glu or gamma-carboxy-Glu; Xaa
      at residue 6 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-T\grayr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<220>
<221> PEPTIDE
<222> (7)..(14)
<223> Xaa at residues 7 and 14 is Pro or hydroxy-Pro.
<400> 173
Xaa Xaa Cys Cys Ser Xaa Xaa Ala Cys Asn Leu Asp His Xaa Xaa Leu
Cys
<210> 174
<211> 18
<212> PRT
<213> Conus ammiralis
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 1, 7 and 14 is Pro or hydroxy-Pro;
      Xaa at residues 2 and 15 is Glu or
      gamma-carboxy-Glu.
<400> 174
Xaa Xaa Cys Cys Ser Asp Xaa Arg Cys Asn Ser Thr His Xaa Xaa Leu
Cys Gly
<210> 175
<211> 21
<212> PRT
<213> Conus arenatus
<220>
<221> PEPTIDE
<222> (7)..(12)
<223> Xaa at residues 7 and 8 is Pro or hydroxy-Pro; Xaa
      at residue 10 is Trp (D or L) or halo-Trp; Xaa ab
      residues 11 and 12 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<220>
<221> PEPTIDE
<222> (13)..(19)
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<223> Xaa at \chiesidue 13 is Tyr, nor-Tyr, mono-halo-Tyr,
       di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr ; Xaa at residue 19 is Glu or
       gamma-carboxy-Glu.
<400> 175
Leu Asn Cys Cys Met Ile Xaa Xaa Cys Xaa Xaa Xaa Xaa Gly Asp Arg
Cys Ser Xaa Val Arg
              20
<210> 176
<211> 22
<212> PRT
<213> Conus arenatus
<220>
<221> PEPTIDE
<222> (9)..(20)
<223> Xaa at residue 9 is Pro or hydroxy-Pro; Xaa at
      residues 12 and 20 is Glu or gamma-carboxy-Glu;
Xaa at residue 14 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, No-phospho-Tyr or
      nitro-Tyr.
<400> 176
Ala Phe Gly Cys Cys Asp Leu Ile Xaa Cys Leu Xaa Arg Xaa Gly Asn
Arg Cys Asn Xaa Val His
<210> 177
<211> 21
<212> PRT
<213> Conus arenatus
<220>
<221> PEPTIDE
<222> (8)..(16)
<223> Xaa at residue 8 is Pro or hydroxy-Pro; Xaa at
      residue 10 is Trp (D or L) or halo-Trp; Xàa at
      residues 12 and 16 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<220>
<221> PEPTIDE
<222> (11)..(19)
<223> Xaa at residues 11 and 19 is Glu or
      gamma-carboxy-Glu; Xaa at residue 13 is Tyr,
      mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr,
      O-phospho-Tyr or nitro-Tyr.
<400> 177
Leu Gly Cys Cys Asn Val Thr Xaa Cys Xaa Xaa Xaa Xaa Gly Aşp Xaa
Cys Asn Xaa Val Arg
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69
<2\0> 178
<21 > 20
<212 PRT
<213> Conus arenatus
<220>
<221> PEPTIDE
<222> (2) \( (14)
<223> Xaa at residue 2 is Glu or gamma-carboxy-Glu; Xaa
      at restidues 7 and 14 is Pro or hydroxy-Pro.
<400> 178
Asp Xaa Cys Cys∕ Ser Asn Xaa Ala Cys Arg Val Asn Asn Xaa His Val
Cys Arg Arg Arg
             20
<210> 179
<211> 21
<212> PRT
<213> Conus arenatus
<220>
<221> PEPTIDE
<222> (7)..(12)
<223> Xaa at residue 7 is Pro or hydroxy-Pro; Xaa at
      residue 10 is Trp (D or L) or halo-Trp; Xaa at
      residue 12 is Glu or gamma-carboxy-Glu.
<220>
<221> PEPTIDE
<222> (13)..(19)
<223> Xaa at residue 13 is Tyr, nar-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr; Xaa at residues 14\foralland 19 is Lys,
      N-methyl-Lys, N, N-dimethyl-Lys\or
      N, N, N-trimethyl-Lys.
<400> 179
Leu Asn Cys Cys Ser Ile Xaa Gly Cys Xaa 🕻 Asn Xaa Xaa Xaa Asp Arg
Cys Ser Xaa Val Arg
             20
<210> 180
<211> 18
<212> PRT
<213> Conus aurisiacus
<220>
<221> PEPTIDE
<222> (7)..(14)
<223> Xaa at residues 7 and 14 is Pro or hydroxy-Pro;
      Xaa at residue 10 is Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<400> 180
Gly Gly Cys Cys Ser His Xaa Val Cys Xaa Phe Asn Asn Xaa Gln
                                                              Met
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Cys Arg
<210> 181
<211> 18
<212> PRT
<213> Conus aurisiacus
<220>
<221> PEPTIDA
<222> (7)..(14)
<223> Xaa at residues 7 and 14 is Pro or hydroxy-Pro.
<400> 181
Gly Gly Cys Cys Ser His Xaa Val Cys Asn Leu Asn Asn Xaa Gln Met
Cys Arg
<210> 182
<211> 17
<212> PRT
<213> Conus bandanus
<220>
<221> PEPTIDE
<222> (6)..(15)
<223> Xaa at residues 6 and 7 is Pro or hydroxy-Pro; Xaa at residues 9 and 15 is Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr \( \) O-phospho-Tyr or
      nitro-Tyr.
<400> 182
Gly Cys Cys Ser His Xaa Xaa Cys Xaa\Ala Asn Asn Gln Ala Xaa Cys
Asn
<210> 183
<211> 17
<212> PRT
<213> Conus betulinus
<220>
<221> PEPTIDE
<222> (7)..(15)
<223> Xaa at residues 7 and 14 is Pro and hydroxy-Rro;
      Xaa at residue 15 is Glu or gamma-carboxy-Glu
<400> 183
Gly Gly Cys Cys Ser His Xaa Ala Cys Ser Val Thr His Xaa Xaa Leu
Cys
<210> 184
<211> 18
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71
<212> PR/T
<213> Conus betulinus
<220>
<221> PEPTIDE
<222> (6)..(\12)
gamma-carboxy-Glu.
<400> 184
Gly Gly Cys Cys Ser Xaa Xaa Ala Cys Ser Val Xaa His Gln Asp Leu
Cys Asp
<210> 185
<211> 25
<212> PRT
<213> Conus caracteristicus
<220>
<221> PEPTIDE
<222> (8)..(22)
<223> Xaa at residues 8 and 22\is Pro or hydroxy-Pro;
     Xaa at residue 10 is Trp \(D or L) or halo-Trp; Xaa
     at residue 13 is Tyr, nor Tyr, mono-halo-Tyr,
     di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
     nitro-Tyr.
<220>
<221> PEPTIDE
<222> (15)..(19)
<223> Xaa at residues 15, 16 and 19 is Glu or
     gamma-carboxy-Glu.
<400> 185
Val Ser Cys Cys Val Val Arg Xaa Cys Xaa I∕le Arg Xaa Gln Xaa Xaa
                                    10
Cys Leu Xaa Ala Asp Xaa Arg Thr Leu
            20
<210> 186
<211> 21
<212> PRT
<213> Conus caracteristicus
<220>
<221> PEPTIDE
<222> (1)..(19)
<223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at
      residue 7 is Pro or hydroxy-Pro; Xaa at residue
      is Trp (D or L) or halo-Trp; Xaa at residues 11
      and 19 is Glu or gamma-carboxy-Glu.
<220>
<221> PEPTIDE
<222> (12)..(16)
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<223> Xaa at rasidues 12 and 16 is Lys, N-methyl-Lys,
      N, N-dimet yl-Lys or N, N, N-trimethyl-Lys; Xaa at
      residue 13\is Tyr, mono-halo-Tyr, di-halo-Tyr,
      O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr.
<400> 186
Xaa Asn Cys Cys Ser√Ile Xaa Gly Cys Xaa Xaa Xaa Xaa Gly Asp Xaa
Cys Ser Xaa Val Arg
             20
<210> 187
<211> 16
<212> PRT
<213> Conus catus
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro;
      Xaa at residue 11 is Glu or gamma-carboxy-Glu.
<400> 187
Gly Cys Cys Ser Asn Xaa Val Cys His Leu Xaa His Xaa Asn Ala Cys
                                      10
<210> 188
<211> 17
<212> PRT
<213> Conus catus
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro;
      Xaa at residue 9 is Tyr, nor-Tyr,\ mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<400> 188
Gly Cys Cys Ser Asn Xaa Ile Cys Xaa Phe Ash Asn Xaa Arg Ile Cys
Arg
<210> 189
<211> 17
<212> PRT
<213> Conus episcopatus
<220>
<221> PEPTIDE
<222> (1)..(14)
<223> Xaa at residues 1 and 14 is Glu or
      gamma-carboxy-Glu; Xaa at residues 6, 7 and 13 1/s
      Pro or hydroxy-Pro; Xaa at residue 10 is Trp (D \Delta r
      L) or halo-Trp.
<220>
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73
<221> PEPTIDE
<222> (11)
<223> Xaa at\residue 11 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 189
Xaa Cys Cys Ser 👣 Naa Xaa Cys Arg Xaa Xaa His Xaa Xaa Leu Cys
Ser
<210> 190
<211> 16
<212> PRT
<213> Conus geographus
<220>
<221> PEPTIDE
<222> (6)
<223> Xaa at residue 6 is Pr \lambda or hydroxy-Pro.
<400> 190
Gly Cys Cys Ser His Xaa Ala Cys ⁄ Ala Gly Asn Asn Gln His Ile Cys
                                       10
<210> 191
<211> 18
<212> PRT
<213> Conus geographus
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro.
<400> 191
Gly Cys Cys Ala Val Xaa Ser Cys Arg Leu Arg Ash Xaa Asp Leu Cys
                                       10
Gly Gly
<210> 192
<211> 16
<212> PRT
<213> Conus imperialis
<220>
<221> NP BIND
\langle 222 \rangle (6) ... (13)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro.
<400> 192
Gly Cys Cys Ser His Xaa Ala Cys Asn Val Asn Asn Xaa His Ile
<210> 193
<211> 20
<212> PRT
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<213> Conus lividus
<220>
<221> PEPTIDE
<222> (2)..(1q)
<223> Xaa at residues 2, 7, 9 and 10 is Pro or
      hydroxy-Aro; Xaa at residues 3 and 4 is Glu or
      gamma-carboxy-Glu.
<400> 193
Thr Xaa Xaa Xaa Cys Cys Xaa Asn Xaa Xaa Cys Phe Ala Thr Asn Ser
                                        10
Asp Ile Cys Gly
              20
<210> 194
<211> 17
<212> PRT
<213> Conus lividus
<220>
<221> PEPTIDE
<222> (7)..(12)
<223> Xaa at residue 7 is Pro or hydroxy-Pro; Xaa at residue 12 is Lys, N-methyl-Lys, N,N-dimethyl-Lys
      or N, N, N-trimethyl-Lys.
<400> 194
Asp Ala Cys Cys Ser Asp Xaa Akg Cys Ser Gly Xaa His Gln Asp Leu
                                        10
Cys
<210> 195
<211> 17
<212> PRT
<213> Conus lividus
<220>
<221> PEPTIDE
<222> (1)..(7)
<223> Xaa at residue 1 is Glu or gamma-carboxy-Glu; Xaa
      at residue 7 is Pro or hydroxy-Pro.
<400> 195
Xaa Asp Cys Cys Ser Asp Xaa Arg Cys Ser Val Gly His Gln Asp Leu
                                        10
Cys
<210> 196
<211> 16
<212> PRT
<213> Conus lividus
<220>
<221> PEPTIDE
<222> (6)
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75
<223> Xaa at residue 6 is Pro or hydroxy-Pro.
<400> 196
Gly Cys Cys Ser√His Xaa Ala Cys Ala Gly Ser Asn Ala His Ile Cys
<210> 197
<211> 17
<212> PRT
<213> Conus lividu
<220>
<221> PEPTIDE
<222> (1)..(7)
<223> Xaa at residue 1 is Glu or gamma-carboxy-Glu; Xaa at residue 7 is Pro or hydroxy-Pro.
<400> 197
5
                                     10
 1
Cys
<210> 198
<211> 16
<212> PRT
<213> Conus lividus
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 and 13 rac{1}{4}s Pro or hydroxy-Pro.
<400> 198
Gly Cys Cys Ser His Xaa Ala Cys Ala Gly Asn Asn Xaa His Ile Cys
                                     10
<210> 199
<211> 17
<212> PRT
<213> Conus lividus
<220>
<221> PEPTIDE
<222> (6)..(14)
<223> Xaa at residues 6 and 13 is Pro of hydroxy-Pro;
      Xaa at residue 14 is Tyr, mono-halp-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<400> 199
Gly Cys Cys Gly Asn Xaa Ser Cys Ser Ile Hia Ile Xaa Xaa Val Cys
Asn
<210> 200
<211> 21
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76
<212>
<213> Conus lividus
<220>
<221> PEPTIDE
<222> (4).\(5)
<223> Xaa at residues 4 and 5 is Glu or
      gamma\carboxy-Glu.
<400> 200
Thr Asp Ser Xaa Cys Cys Leu Asp Ser Arg Cys Ala Gly Gln His
Gln Asp Leu Cys \Gly
<210> 201
<211> 17
<212> PRT
<213> Conus marmoreús
<220>
<221> PEPTIDE
<222> (6)..(15)
<223> Xaa at residues 6 and 7 is Pro or hydroxy-Pro; Xaa at residues 9 and 15 is Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<400> 201
Gly Cys Cys Ser Asn Xaa Xaa Cys Xaa Ala Asn Asn Gln Ala Xaa Cys
                                        10
Asn
<210> 202
<211> 16
<212> PRT
<213> Conus marmoreus
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro.
<400> 202
Gly Cys Cys Ser His Xaa Ala Cys Ser Val Asn Asn Xaa Asp Ile Cys
                                       10
<210> 203
<211> 18
<212> PRT
<213> Conus musicus
<220>
<221> PEPTIDE
<222> (2)..(15)
<223> Xaa at residues 2 and 12 is Lys, N-methyl\Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys; Xa at
      residue 14 is Pro or hydroxy-Pro.
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<220>
<221> PEPT\DE
<222> (16)
<223> Xaa at\ residue 16 is Tyr, mono-halo-Tyr,
      di-hald-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-T\r.
<400> 203
Gly Xaa Cys Cys√Ile Asn Asp Ala Cys Arg Ser Xaa His Xaa Gln Xaa
Cys Ser
<210> 204
<211> 17
<212> PRT
<213> Conus musicus
<220>
<221> PEPTIDE
<222> (4)..(15)
<223> Xaa at residues 4 and 15 is Tyr, nor-Tyr,
      mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr,
      O-phospho-Tyr or nit\ro-Tyr; Xaa at residue 13 is
      Pro or hydroxy-Pro.
<400> 204
Gly Cys Cys Xaa Asn Ile Ala Ċys Arg Ile Asn Asn Xaa Arg Xaa Cys
                                      10
Arg
<210> 205
<211> 17
<212> PRT
<213> Conus obscurus
<220>
<221> PEPTIDE
<222> (6)..(15)
<223> Xaa at residues 6 and 13 is Pro or \hydroxy-Pro;
      Xaa at residues 12 and 15 is Tyr, nor-Tyr,
      mono-halo-Tyr, di-halo-Tyr, O-sulpho Tyr,
      O-phospho-Tyr or nitro-Tyr.
<220>
<221> PEPTIDE
<222> (14)
<223> Xaa at residue 14 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 205
Gly Cys Cys Ser His Xaa Val Cys Arg Phe Asn Xaa Xaa Xaa Cys
Gly
<210> 206
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<211>
<212२ ∖ ₽
<213>
              obscurus
<220>
<221> PEPTID
<222> (2)..(1)5
<223> Xaa at lesidue 2 is Glu or gamma-carboxy-Glu; Xaa at residues 7, 8 and 14 is Pro or hydroxy-Pro; Xaa at residue 15 is Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
       nitro-Tyr
<400> 206
Asp Xaa Cys Cys Ala Ser Xaa Xaa Cys Arg Leu Asn Asn Xaa Xaa Val
Cys His
<210> 207
<211> 19
<212> PRT
<213> Conus obscurus
<220>
<221> PEPTIDE
<222> (6)..(18)
<223> Xaa at residue 6 is Pro or hydroxy-Pro; Xaa at
       residue 9 is Trp (D or L) \or halo-Trp; Xaa at
       residues 14 and 18 is Glu or gamma-carboxy-Glu.
<220>
<221> PEPTIDE
<222> (15)
<223> Xaa at residue 15 is Tyr, nor Tyr, mono-halo-Tyr,
       di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
       nitro-Tyr.
<400> 207
Gly Cys Cys Ser Asn Xaa Val Cys Xaa Gln\Asn Asn Ala Xaa Xaa Cys
                                           10
Arg Xaa Ser
<210> 208
<211> 16
<212> PRT
<213> Conus obscurus
<220>
<221> PEPTIDE
<222> (6)..(15)
<223> Xaa at residues 6 and 7 is Pro or hydroxy-Rro; Xaa
       at residue 15 is Tyr, nor-Tyr, mono-halo-Tyr,
       di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
       nitro-Tyr.
<400> 208
Gly Cys Cys Ser His Xaa Xaa Cys Ala Gln Asn Asn Gln Asp Xaa Cys
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209
<210
      19
<211>
<212> ART
<213> Conus obscurus
<220>
<221> PEPT\DE
<222> (6)..(15)
<223> Xaa at\residue 6 is Pro or hydroxy-Pro; Xaa at
       residues 14 and 18 is Glu or gamma-carboxy-Glu;
      Xaa at tesidue 15 is Tyr, nor-Tyr, mono-halo-Tyr,
       di-halo-\text{Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr
<400> 209
Gly Cys Cys Ser His Xaa Ala Cys Ser Gly Asn Asn Arg Xaa Xaa Cys
                                          10
Arg Xaa Ser
<210> 210
<211> 18
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (2)..(15)
<223> Xaa at residues 2, 7\and 14 is Pro or hydroxy-Pro;
      Xaa at residue 6 is Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr; Xaa at residue 15 is Glu or
      gamma-carboxy-Glu
<400> 210
Asp Xaa Cys Cys Ser Xaa Xaa Asp ⟨Cys Gly Ala Asn His Xaa Xaa Ile
Cys Gly
<210> 211
<211> 17
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (1)..(14)
<223> Xaa at residues 1 and 14 is Glu or
                                                  \sqrt{7} and 13 is
      gamma-carboxy-Glu; Xaa at residues 6,
      Pro or hydroxy-Pro; Xaa at residue 10 \(\frac{1}{4}\)s Trp (D or
      L) or halo-Trp.
<220>
<221> PEPTIDE
<222> (11)
<223> Xaa at residue 11 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
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80
<400> 211
Xaa Cys Cys Ser Gln Xaa Xaa Cys Arg Xaa Xaa His Xaa Xaa Leu Cys
  1
Ser
<210> 212
<211> 16
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6\ and 13 is Pro or hydroxy-Pro.
<400> 212
Gly Cys Cys Ser His Xaa Åla Cys Ala Gly Asn Asn Xaa His Ile Cys
<210> 213
<211> 16
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (6)..(15)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro;
      Xaa at residue 15 is Tyr, hor-Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
      nitro-Tyr.
<400> 213
Gly Cys Cys Ser Asp Xaa Ser Cys Asn\Val Asn Asn Xaa Asp Xaa Cys
                                        10
<210> 214
<211> 18
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222> (1)..(7)
<223> Xaa at residues 1 and 2 is Glu or
      gamma-carboxy-Glu; Xaa at residue 7 \is Pro or
      hydroxy-Pro.
<400> 214
Xaa Xaa Cys Cys Ser Asp Xaa Arg Cys Ser Val\Gly His Gln Asp Met
                                        10
Cys Arg
<210> 215
<211> 17
<212> PRT
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81
<213> Conus durpurascens
<220>
<221> PEPTIDE
<222> (7)..(15)
<223> Xaa at residue 7 is Pro or hydroxy-Pro; Xaa at
      residue 14 is Glu or gamma-carboxy-Glu.
<400> 215
Gly Gly Cys Cys Šer Asn Xaa Ala Cys Leu Val Asn His Leu Xaa Met
Cys
<210> 216
<211> 18
<212> PRT
<213> Conus purpurascens
<220>
<221> PEPTIDE
<222> (3)..(15)
<223> Xaa at residues 3, 8 and 15 is Pro or hydroxy-Pro.
<400> 216
Arg Asp Xaa Cys Cys Phe 'Asn Xaa Ala Cys Asn Val Asn Asn Xaa Gln
Ile Cys
<210> 217
<211> 21
<212> PRT
<213> Conus purpurascens
<220>
<221> PEPTIDE
<222> (5)..(8)
<223> Xaa at residue 5 is Pro or \hydroxy-Pro; Xaa at
      residue 8 is Trp (D or L) or halo-Trp.
<400> 217
Cys Cys Ser Asp Xaa Ser Cys Xaa Arg\ Leu His Ser Leu Ala Cys Thr
Gly Ile Val Asn Arg
             20
<210> 218
<211> 16
<212> PRT
<213> Conus purpurascens
<220>
<221> PEPTIDE
<222> (5)
<223> Xaa at residue 5 is Pro or hydroxy-Pro
<400> 218
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82
Cys Cys Thr Asn Xaa Ala Cys Leu Val Asn Asn Ile Arg Phe Cys Gly
<210> 219
<211> 18
<212> PRT
<213> Conus regius
<220>
<221> PEPTIDE
<222> (2)..(7)
<223> Xaa at residue 2\is Glu or gamma-carboxy-Glu; Xaa
      at residue 7 is Pro or hydroxy-Pro.
<400> 219
Asp Xaa Cys Cys Ser Asp Xaa Arg Cys His Gly Asn Asn Arg Asp His
Cys Ala
<210> 220
<211> 17
<212> PRT
<213> Conus regius
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 and 13\is Pro or hydroxy-Pro.
<400> 220
Asp Cys Cys Ser His Xaa Leu Cys Arg Leu Phe Val Xaa Gly Leu Cys
                                        10
Ile
<210> 221
<211> 17
<212> PRT
<213> Conus regius
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro;
    Xaa at residue 9 is Lys, N-methyl Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<220>
<221> PEPTIDE
<222> (12)
<223> Xaa at residue 12 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho+Tyr or
      nitro-Tyr.
<400> 221
Gly Cys Cys Ser His Xaa Val Cys Xaa Val Arg √Xaa Xaa Asp Leu Cys
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Arg
<21Q> 222
<211 16
<212>\PRT
<213> Conus regius
<220>
<221> PEPTIDE
<222> (6) \. (13)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro.
<400> 222
Gly Cys Cys Ser His Xaa Ala Cys Asn Val Asn Asn Xaa His Ile Cys
<210> 223
<211> 16
<212> PRT
<213> Conus regius
<220>
<221> PEPTIDE
<222> (6)..(12)
<223> Xaa at residue 6 is Pro or hydroxy-Pro; Xaa at residue 12 is Tyr, nor-Tyr, nor-Tyr,
      mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr,
      O-phospho-Tyr or nitro-Tyr.
<220>
<221> PEPTIDE
<222> (9)
<223> Xaa at residue 9 is Lys, Namethyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 223
Gly Cys Cys Ser His Xaa Val Cys Xaa Val Arg Xaa Ser Asp Met Cys
<210> 224
<211> 17
<212> PRT
<213> Conus stercusmuscarum
<220>
<221> PEPTIDE
<222> (7)..(14)
<223> Xaa at residues 7 and 14 is Pro or hydroxy Pro;
      Xaa at residue 10 is Lys, N-methyl-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 224
Gly Gly Cys Cys Ser His Xaa Ala Cys Xaa Val His Phe 🔭 a His Ser
Cys
<210> 225
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84
<211> 20
<212> PRT
<213> Conus stercusmuscarum
<220>
<221> PEPTIDE
<222> (6)..(14)
<223> Xaa\ at residues 6 and 13 is Pro or hydroxy-Pro;
      Xaa at residue 14 is Glu or gamma-carboxy-Glu.
<400> 225
Val Cys Cys \Ser Asn Xaa Val Cys His Val Asp His Xaa Xaa Leu Cys
                                      10
Arg Arg Arg Arg
<210> 226
<211> 17
<212> PRT
<213> Conus striatus
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro.
<400> 226
Gly Cys Cys Ser His Xaa Val Cys Asn Leu Ser Asn Xaa Gln Ile Cys
                                      10
Arg
<210> 227
<211> 18
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at
      residues 2 and 15 is Glu or gamma-carboxy-Glu; Xaa
      at residues 7 and 14 is Pro or hydroxy-Pro.
<400> 227
Xaa Xaa Cys Cys Ser His Xaa Ala Cys Asn\Val Asp His Xaa Xaa Ile
Cys Arg
<210> 228
<211> 17
<212> PRT
<213> Conus tulipa
<220>
<221> PEPTIDE
<222> (6)
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85
<223> Xaa'
           at residue 6 is Pro or hydroxy-Pro.
<400> 228
Gly Cys Cys Ser Asn Xaa Ala Cys Leu Val Asn His Ile Arg Phe Cys
Gly
<210> 229
<211> 17
<212> PRT
<213> Conus virgo
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues & and 13 is Pro or hydroxy-Pro.
<400> 229
Asp Cys Cys Asp Asp Xaa Ala Cys Thr Val Asn Asn Xaa Gly Leu Cys
Thr
<210> 230
<211> 20
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222> (6)..(13)
<223> Xaa at residues 6, 7 and 13 is Pro or hydroxy-Pro;
      Xaa at residue 11 is Lys, N-methy\[-Lys,
      N, N-dimethyl-Lys or N, N, N-trimethyl-Lys.
<400> 230
Gly Cys Cys Ser Asn Xaa Xaa Cys Ile Ala Xaa Asn Xaa His Met Cys
                                        10
Gly Gly Arg Arg
              20
<210> 231
<211> 18
<212> PRT
<213> Conus geographus
<220>
<221> PEPTIDE
<222> (5)..(9)
<223> Xaa at residue 5 is Pro or hydroxy-Pro; Xaa a
      residue 8 is Tyr, nor-Tyr, mono-halo-Tyr,
      di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr; Xaa at residue 9 is Glu or
      gamma-carboxy-Glu.
<220>
<221> PEPTIDE
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86
<222> (10)..(1/4)
<223> Xaa at residues 10, 11, 12 and 14 is Lys,
       N-methyl-tys, N,N-dimethyl-Lys or
       N, N, N-trimethyl-Lys.
<400> 231
Cys Cys Thr Ile Xaa Ser Cys Xaa Xaa Xaa Xaa Xaa Ile Xaa Ala Cys
                                           10
Val Phe
<210> 232
<211> 18
<212> PRT
<213> Conus regius
<220>
<221> PEPTIDE
<222> (6)..(16)
<223> Xaa at residues 6 and 16 is Pro or hydroxy-Pro;
      Xaa at residue 13 is Lys, N-methyl-Lys, N,N-dimethyl-Lys or N,N-trimethyl-Lys.
<400> 232
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                                          10
Ser Cys
<210> 233
<211> 108
<212> DNA
<213> Conus imperialis
<220>
<221> CDS
<222> (1)..(105)
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Ser Asp Gly Lys Ser Ala Ala Ala Lys Ala Lys Pro Ser His Leu Thr
                                          10
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Ala Pro Phe Ile Arg Asp Glu Cys Cys Ser Asp Sem{t} Arg Cys Gly Lys
aac tgt ctt tga
                                                                            108
Asn Cys Leu
          35
<210> 234
<211> 35
<212> PRT
<213> Conus imperialis
<400> 234
Ser Asp Gly Lys Ser Ala Ala Ala Lys Ala Lys Pro Ser His Deu Thr
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87
Ala Pro Phe Ile Arg Ash Glu Cys Cys Ser Asp Ser Arg Cys Gly Lys
                                  25
             20
Asn Cys Leu
<210> 235
<211> 108
<212> DNA
<213> Conus imperialis
<220>
<221> CDS
<222> (1)..(105)
<400> 235
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Phe Asp Gly Arg Asn Ala Pro Ala Asp Asp Lys Ala Ser Asp Leu Ile
gct caa atc gtc agg aga gca tgt tgt tcc gat cgt cgc tgt aga tgg
                                                                    96
Ala Gln Ile Val Arg Arg Ala Cys Cys Ser Asp Arg Arg Cys Arg Trp
             20
                                                                    108
agg tgt ggt tga
Arg Cys Gly
<210> 236
<211> 35
<212> PRT
<213> Conus imperialis
<400> 236
Phe Asp Gly Arg Asn Ala Pro Ala Asp Asp Lys Ala Ser Asp Leu Ile
Ala Gln Ile Val Arg Arg Ala Cys Cys Ser\Asp Arg Arg Cys Arg Trp
Arg Cys Gly
         35
<210> 237
<211> 145
<212> DNA
<213> Conus regius
<220>
<221> CDS
<222> (1)..(105)
<400> 237
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Ser Asp Gly Arg Asn Ala Ala Ala Asp Ala Arg Ala Ser Pro Arg Ile
gct ctt ttc ctc agg ttc aca tgc tgt agg aga ggt acc tgt tcc cag
Ala Leu Phe Leu Arg Phe Thr Cys Cys Arg Arg Gly Thr dys Ser Gln
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cac tgt ggt His Cys Gly 35	tgaagac	act gct	gctccag	gaccctctc	ja accacç	gacgt		145
<210> 238 <211> 35 <212> PRT <213> Conus	regius	1	•					
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His Cys Gly 35		•						
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Ser Asn Gly 1	Arg Asn 5	Ála Ála	Ala Asp	Ala Lys	Ala Ser	Gln Ar	g ile	
gct cca ttc Ala Pro Phe	ctc agg Leu Arg 20	gac tat Asp Tyr	tgc tgt Cys Cys 25	s Arg \A \ g	cat gcc His Ala	tgt acc Cys Th: 30	g ttg r Leu	96
att tgt ggt Ile Cys Gly 35	tgaagac	get getg	ctccag (gaccctctg	accacg	acgt		145
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Ala Pro Phe	Leu Arg 20	Asp Tyr	Cys Cys		His Ala	Cys Th:	c Leu	
Ile Cys Gly 35								
<210> 241 <211> 145 <212> DNA <213> Conus	regius					\.\		

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<22\> CDS
<2223
       (1)..(105)
<400> 241
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                                                                              48
Ser Asn Gy Arg Asn Ala Ala Ala Asp Ala Lys Ala Ser Gln Arg Ile
                                            10
gct cca ttc ctc agg gac tat tgc tgt agg aga cct ccc tgt acg ttg
Ala Pro Phe Deu Arg Asp Tyr Cys Cys Arg Arg Pro Pro Cys Thr Leu
                                                                              96
                                                                              145
att tgt ggt tgaagct gctgctccag gaccctctga accacgacgt
Ile Cys Gly
<210> 242
<211> 35
<212> PRT
<213> Conus regius
<400> 242
Ser Asn Gly Arg Asn Ala \Ala Ala Asp Ala Lys Ala Ser Gln Arg Ile
                                           10
Ala Pro Phe Leu Arg Asp Tyx Cys Cys Arg Arg Pro Pro Cys Thr Leu
Ile Cys Gly
<210> 243
<211> 136
<212> DNA
<213> Conus regius
<220>
<221> CDS
<222> (1)..(96)
<400> 243
tot aat aaa agg aag aat goo goa atg ott gao ar{ar{\chi}}tg atc got caa cac
                                                                             48
Ser Asn Lys Arg Lys Asn Ala Ala Met Leu Asp Met Ile Ala Gln His
gcc ata agg ggt tgc tgt tcc gat cct cgc tgt aga tat aga tgt cgt Ala Ile Arg Gly Cys Cys Ser Asp Pro Arg Cys Arg Ryr Arg Cys Arg
               20
                                                                             136
tgaagacgct gctgctccag gaccctctga accacgacgt
<210> 244
<211> 32
<212> PRT
<213> Conus regius
<400> 244
Ser Asn Lys Arg Lys Asn Ala Ala Met Leu Asp Met Ile Ala Gl\hbar His
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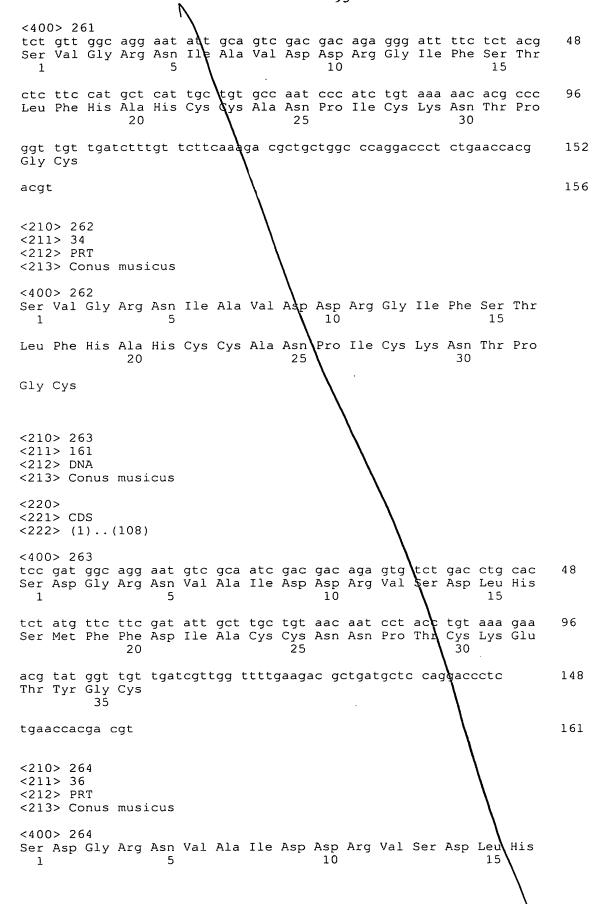
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91
<21\0> 248
<211>> 35
<212 > PRT
<213> Conus regius
<400> 248
Phe Asp 🗘 y Arg Asn Ala Ala Ala Asp Ala Lys Val Ile Asn Thr Val
Ala Arg Ile\Ala Trp Asp Ile Cys Cys Ser Glu Pro Asp Cys Asn His
Lys Cys Val
<210> 249
<211> 136
<212> DNA
<213> Conus regius
<220>
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Ser Asn Lys Arg Lys Asn Ala Ala Met Leu Asp Met Ile Ala Gln His
                                      10
qcc ata agg ggt tgc tgt tcc gat cct cgc tgt aaa cat cag tgt ggt
                                                                     96
Ala Ile Arg Gly Cys Cys Ser Asp Pro Arg Cys Lys His Gln Cys Gly
tgaagacgct gctgctccag gaccctctga\accacgacgt
                                                                    136
<210> 250
<211> 32
<212> PRT
<213> Conus regius
Ser Asn Lys Arg Lys Asn Ala Ala Met Leu Asp Met Ile Ala Gln His
Ala Ile Arg Gly Cys Cys Ser Asp Pro Arg Cys Lys His Gln Cys Gly
<210> 251
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<222> (1)..(105)
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atc aag aat aca gca gcc agc aac aaa gcg tct agc ctg gtg rak{d}ct ctt
Ile Lys Asn Thr Ala Ala Ser Asn Lys Ala Ser Ser Leu Val Aar{f l}a Leu
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92 gtt gtc agg g $\dot{\mathbf{q}}$ a tgc tgt tac aat cct gtc tgc aag aaa tat tat tgt Val Val Arg GlV Cys Cys Tyr Asn Pro Val Cys Lys Lys Tyr Tyr Cys 136 tgq aaa ggc tgatactcca ggaccctctg aaccacgacg t Trp Lys Gly <210> 252 <211> 35 <212> PRT <213> Conus musicus <400> 252 Ile Lys Asn Thr Ala Ala Ser Asn Lys Ala Ser Ser Leu Val Ala Leu 10 Val Val Arg Gly Cys Cys 🕻 yr Asn Pro Val Cys Lys Lys Tyr Tyr Cys Trp Lys Gly <210> 253 <211> 148 <212> DNA <213> Conus purpurascens <220> <221> CDS <222> (1)..(117) <400> 253 tct gaa ggc agg aat gct gaa gcc atc qac aac gcc tta gac cag agg Ser Glu Gly Arg Asn Ala Glu Ala Ile App Asn Ala Leu Asp Gln Arg gat cca aag cga cag gag ccg ggg tgc tgt agg cat cct gcc tgt ggg Asp Pro Lys Arg Gln Glu Pro Gly Cys Cys Arg His Pro Ala Cys Gly 96 aag aac aga tgt gga aga cgc tgatgctcca gga cctctg aaccacgacg t 148 Lys Asn Arg Cys Gly Arg Arg <210> 254 <211> 39 <212> PRT <213> Conus purpurascens <400> 254 Ser Glu Gly Arg Asn Ala Glu Ala Ile Asp Asn Ala Lel Asp Gln Arg Asp Pro Lys Arg Gln Glu Pro Gly Cys Cys Arg His Pro Ala Cys Gly Lys Asn Arg Cys Gly Arg Arg

93 <210> 255 <211> 156 <212> DNA <213> Conus musicus <220> <221> CDS <222> (1)..(102) <400> 255 tct gat ggc agg aat att gca gtc gac gac aga tgg tct ttc tat acg 48 Ser Asp Gly Arg Asn Ile Ala Val Asp Asp Arg Trp Ser Phe Tyr Thr ctc ttc cat gct act\tgc tgt gcc gat cct gac tgt aga ttc cgg ccc Leu Phe His Ala Thr\Cys Cys Ala Asp Pro Asp Cys Arg Phe Arg Pro 96 30 20 ggt tgt tgatctttgt tcttcaaaga cgctgctggc ccaggaccct ctgaaccacg 152 Gly Cys 156 acgt <210> 256 <211> 34 <212> PRT <213> Conus musicus <400> 256 Ser Asp Gly Arg Asn Ile Ala Val Asp Asp Arg Trp Ser Phe Tyr Thr 10 15 1 Leu Phe His Ala Thr Cys Cys Ala Asp Pro Asp Cys Arg Phe Arg Pro 25 Gly Cys <210> 257 <211> 142 <212> DNA <213> Conus musicus <220> <221> CDS <222> (1)..(102) <400> 257 atc aag aat act gca gcc agc aac aaa gcg cct agc ctg gtg gct att 48 Ile Lys Asn Thr Ala Ala Ser Asn Lys Ala Pro√Ser Leu Val Ala Ile 10 gcc gtc agg gga tgc tgt tac aat cct tcc tgt t $rac{d}{d}g$ ccg aaa aca tat 96 Ala Val Arg Gly Cys Cys Tyr Asn Pro Ser Cys Tra Pro Lys Thr Tyr tgt agt tggaaagget gatgeteeag gaccetetga accaegaagt 142 Cys Ser <210> 258 <211> 34

94 <212> PRT <213> Conus musicus <400> 258 Ile Lys Asn thr Ala Ala Ser Asn Lys Ala Pro Ser Leu Val Ala Ile Ala Val Arg Glỳ Cys Cys Tyr Asn Pro Ser Cys Trp Pro Lys Thr Tyr Cys Ser <210> 259 <211> 161 <212> DNA <213> Conus musicus <220> <221> CDS <222> (1)..(108) <400> 259 tct gat agc agg aat gtc gca atc gag gac aga gtg tct gac ctg cac Ser Asp Ser Arg Asn Val Ala Ile Glu Asp Arg Val Ser Asp Leu His 48 tot atq tto tto gat gtt tot t'go tgt ago aat cot acc tgt aaa gaa 96 Ser Met Phe Phe Asp Val Ser Cỳs Cys Ser Asn Pro Thr Cys Lys Glu 25 acg tat ggt tgt tgatcgttgg ttttgaagac gctgatgctc caggaccctc 148 Thr Tyr Gly Cys tgaaccacga cgt 161 <210> 260 <211> 36 <212> PRT <213> Conus musicus <400> 260 Ser Asp Ser Arg Asn Val Ala Ile Glu Asp Arg\ Val Ser Asp Leu His 10 Ser Met Phe Phe Asp Val Ser Cys Cys Ser Asn Pto Thr Cys Lys Glu 30 Thr Tyr Gly Cys 35 <210> 261 <211> 156 <212> DNA <213> Conus musicus <220> <221> CDS <222> (1)..(102)





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Ser Met Phe Phe Asp Ile Ala Cys Cys Asn Asn Pro Thr Cys Lys Glu 20 25 30
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Thr Tyr Gly Cys 35

<210> 265

<211> 161

<212> DNA

<213> Conus musicus

<220>

<221> CDS

<222> (1)..(108)

<400> 265

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tct atg ctc ttc gat gtt gct tgc tgt agc aat cct gtc tgt aaa gaa 96 Ser Met Leu Phe Asp Val Ala Cys Cys Ser Asn Pro Val Cys Lys Glu 20 25 30

acg tat ggt tgt tgatcgttgg ttttgaagac gctgatgctc caggaccctc 148
Thr Tyr Gly Cys

tgaaccacga cgt

<210> 266

<211> 36

<212> PRT

<213> Conus musicus

<400> 266

Ser Asp Gly Arg Asn Val Ala Ile Glu Asp Arg Val Ser Asp Leu Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ser Met Leu Phe Asp Val Ala Cys Cys Ser Asn Pro Val Cys Lys Glu 20 25 30

Thr Tyr Gly Cys

<210> 267

<211> 154

<212> DNA

<213> Conus betulinus

<220>

<221> CDS

<222> (1)..(123)

<400> 267

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gct atg acc ata agg gga gga tgc tgt tcc tat cct ccc tgt atc gcg 96 Ala Met Thr Ile Arg Gly Gly Cys Cys Ser Tyr Pro Pro Cys Ile Ala

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97

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aat aat cct ttt tgt gct gga aga cgc tga Asn Asn Pro Phe Cys Ala Gly Arg Arg 35 40	126
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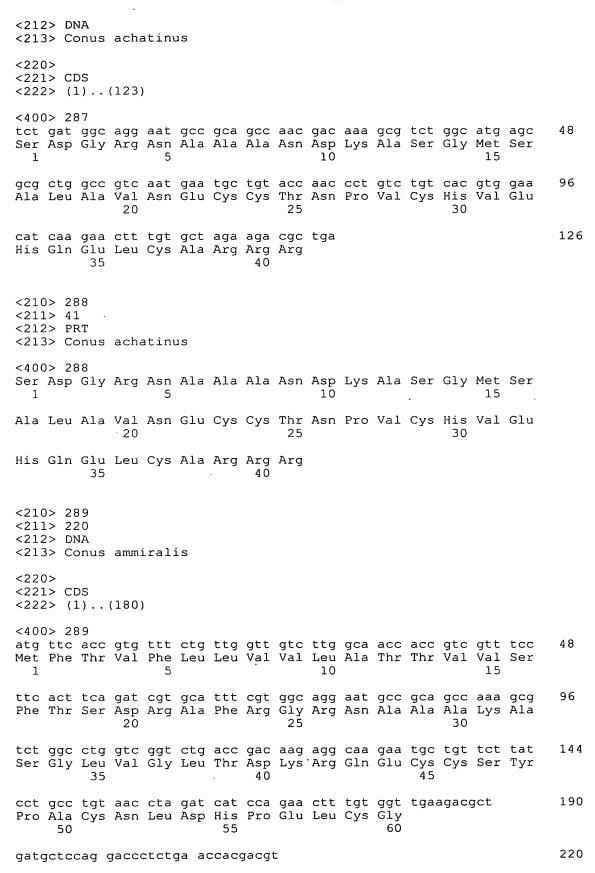


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Ser	Gly	Leu 35	Val	Gly	Leu	Thr	Asp 40	Lys	Arg	Gln	Glu	Cys 45	Cys	Ser	Tyr	
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			tgt Cys													192
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Ser	Thr	Ser	Gly 20	Arg	Arg	Ala	Phe	Arg 25	Gly	Arg	Asn	Ala	Ala 30	Ala	Lys	
Ala	Ser	Gly 35	Leu	Val	Gly	Leu	Thr 40	Asp	Arg	Arg	Pro	Glu 45	Суѕ	Суѕ	Ser	



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                                                                    96
Thr Ala Arg Leu Gly Cys Cys Asn Val Thr Pro Cys Trp Glu Lys Tyr
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Ala Leu Ser Val Arg Gly Gly Cys Cys Ser His Pro Ala Cys Ser Val
                                  25
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Thr His Pro Glu Leu Cys Gly
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acc atc agg Thr Ile Arg													96
caa gac ctt Gln Asp Leu 35					tgat	gcto	ca q	ggaco	cctct	g aa	accad	egacg	150
t													151
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gat ccc agg Asp Pro Arg 35													114
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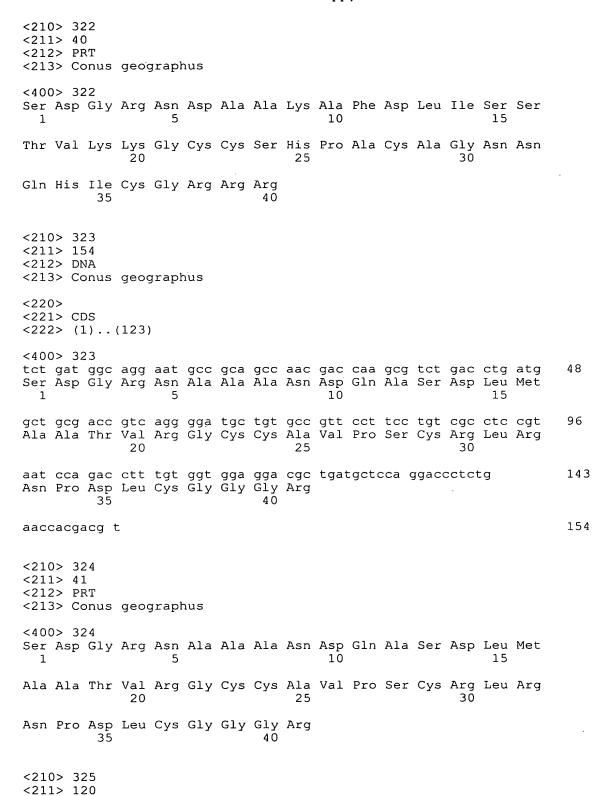
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aat cca cga att tgt cgt gga aga cgc tgatgctcca ggaccctctg Asn Pro Arg Ile Cys Arg Gly Arg Arg 35 40	143
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Thr Val Arg Glu Cys Cys Ser Gln Pro Pro Cys Arg Trp Lys His Pro
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                                 25
                                                                    111
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Glu Leu Cys Ser
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Thr Val Lys Lys Gly Cys Cys Ser His Pro Ala Cys Ala Gly Asn Asn
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Glu Glu Cys Cys Pro Asn Pro Pro Cys Phe Ala Thr Asn Ser Asp Ile
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                                  25
tgt ggc gga aga cgc tgatgctcca ggaccctctg aaccacgacg t
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Cys Gly Gly Arg Arg
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Glu Leu Thr Val Arg Glu Asp Cys Cys Ser Asp Pro Arg Cys Ser Val

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acca	acga	cgt														157
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Glu	Leu	Thr	Val 20	Arg	Glu	Asp	Суѕ	Cys 25	Ser	Asp	Pro	Arg	Ċys 30	Ser	Val	
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		ctg Leu														96
		gca Ala 35								tgat	-gct	cca (ggac	cctc	=g	146
aaco	cacga	acg 1	t													157
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Met	Ala	Leu	Ala 20	Val	Arg	Gly	Cys	Cys 25	Ser	His	Pro	Ala	Cys 30	Ala	Gly	
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			gtc Val 20													96
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Asn Gln Ala Tyr Cys Asn Gly Arg Arg

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<220>

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<222> (1)..(114)

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gct ctg acc gtc aag gga tgc tgt tct cat cct gcc tgt agc gtg aat 96 Ala Leu Thr Val Lys Gly Cys Cys Ser His Pro Ala Cys Ser Val Asn

117 aat cca gac att tgt ggt tga Asn Pro Asp Ile Cys Gly 35

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Tyr Cys Ser Gly Arg 35	Arg		
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		e aat att gcc tgt aga att Asn Ile Ala Cys Arg Ile 30	
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aaccacgacg t			154
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Asn Pro Arg Tyr Cys	Arg Gly Lys Arg	3	

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                                   10
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Tyr Cys Gly Gly Ang Arg
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gat gaa tgc tgt gcc agt cct ccc tgt cgt ttg aat aat cca tac gta Asp Glu Cys Cys Ala Ser Pro Pro Cys Arg Leu Asn Pro Tyr Val
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                                                  15
                                                                                 151
tgt cat tgacgacgct gatgctccag gaccctctga accacgacgt
Cys His
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                                      10
ccc act tca gat cgt gca tct gat agg agg aat gcc gca gcc aaa gcg
                                                                    96
Pro Thr Ser Asp Arg Ala Ser Asp Arg Asn Ala Ala Ala Lys Ala
ttt gac ctg aga tat tcg acc\gcc aag aga gga tgc tgt tcc aat cct
                                                                    144
Phe Asp Leu Arg Tyr Ser Thr Ala Lys Arg Gly Cys Cys Ser Asn Pro
gtc tgt tgg cag aat aat gca gaa tac tgt cgt gaa agt ggc
                                                                   186
Val Cys Trp Gln Asn Asn Ala Glu Tyr Cys Arg Glu Ser Gly
                         55
                                                                    217
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Pro Thr Ser Asp Arg Ala Ser Asp Arg Arg Ala Ala Ala Lys Ala
Phe Asp Leu Arg Tyr Ser Thr Ala Lys Arg Gly Cys Cys Ser Asn Pro
Val Cys Trp Gln Asn Asn Ala Glu Tyr Cys Arg Glu Ser Gly
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ctg atc gct ctg acc atc aag gga tgc tgt tct cac cct ccc tgt gcc Leu Ile Ala Leu Thr Ile Lys Gly Cys Cys Ser His Pro Pro Cys Ala 35 40 . 45	144
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tct gac ctg atg tat tcg acc gtc aag aaa gga tgt tgt tcc cat cct Ser Asp Leu Met Tyr Ser Thr Val Lys Lys Gly Cys Cys Ser His Pro 35 40 45	144
gcc tgt tcg ggg aat aat cga gaa tat tgt cgt gaa agt ggc Ala Cys Ser Gly Asn Asn Arg Glu Tyr Cys Arg Glu Ser Gly 50 55 60	186

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                                                                         217
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Ser Thr Ser Asp\Atg Ala Ser Asp Arg Arg Asn Ala Ala Ala Lys Ala
Ser Asp Leu Met 1/\sqrt{n} Ser Thr Val Lys Lys Gly Cys Cys Ser His Pro
Ala Cys Ser Gly Ash
                      Alsn Arg Glu Tyr Cys Arg Glu Ser Gly
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Asp Arg Asp Pro Cys Cys Ser Tyr Pro Asp Cys Gly Ala Asn His Pro
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gag att tgt ggt gga aaa cgc tgatgctcca ggacctctg aaccacgacg t
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Glu Ile Cys Gly Gly Lys Arg
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His Pro Glu Ile Cys Gly Gly Lys Arg
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                                                  1
tgc tgt tct g|_{	extstyle q}t cct agc tgt aac gtg aat aat cca gac tat tgt ggt
Cys Cys Ser Asp Pro Ser Cys Asn Val Asn Asn Pro Asp Tyr Cys Gly
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                                         15
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                                                                          105
                                10
gat atg tgt cgg tgaagcacgt gatgctccag\gaccctctga accacgacgt
                                                                          157
Asp Met Cys Arg
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t	151
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Ala Cys Thr Gly Ile Val Asn Arg 35 40	

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Cys Gly Gly Arg Arg 35		\	
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gct cca atc gtc agg Ala Pro Ile Val Arg 20		Ser Asp Pro Arg C	
aat aat cgg gac cac Asn Asn Arg Asp His 35	tgt gct tgaagac Cys Ala	get getgdtecag gae	cctctga 147
accacgacgt			157



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Asn Asn Arg Asp His Cys Ala
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                                      10
                                                                     96
tet caa act gte aag aga gat tge t{f q}t tee eat eet ete tgt aga tta
Ser Gln Thr Val Lys Arg Asp Cys Cys Ser His Pro Leu Cys Arg Leu
ttt gtt cca gga ctt tgt att tgaagacgct gctgctccag gaccctctga
                                                                     147
Phe Val Pro Gly Leu Cys Ile
                                                                     156
accacgact
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Phe Val Pro Gly Leu Cys Ile
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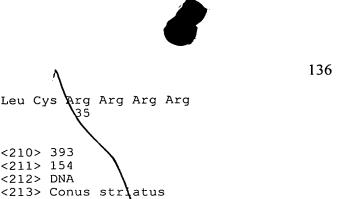
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Ala Gln Ile Val Arg Arg Gly Cys Cys Ser Ḥis Pro Val Cys Lys Val
agg tat cca gac ctg tgt cgt tgaagacget getgetecag gaccetetga
                                                                    147
Arg Tyr Pro Asp Leu Cys Arg
accacgacgt
                                                                    157
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<213> Conus regius
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Ser Asp Gly Arg Asn Ala Ala Ala Asp Asn Lys Ala Ser Asp Leu Ile
Ala Gln Ile Val Arg Arg Gly Cys Cys Ser His Pro Val Cys Lys Val
Arg Tyr Pro Asp Leu Cys Arg
<210> 385
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Ser Asp Gly Arg Asn Ala Ala Ala Asp Asn Arg Ala Ser Asp Leu Ile
                                                                    96
gct caa atc gtc agg aga gga tgc tgt tcc cat cct gcc tgt aat gtg
Ala Gln Ile Val Arg Arg Gly Cys Cys Ser His Pro Ala Cys Asn Val
             20
                                                                    147
aat aat cca cac att tgt ggt tgaagacgct gctgctccag gaccctctga
Asn Asn Pro His Ile Cys Gly
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accacgacgt
<210> 386
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134
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Ser Asp Gly Arg Asn Ala Ala Ala Asp Asn Arg Ala Ser Asp Leu Ile
Ala Gln Ile Val Arg Arg Gly Cys Cys Ser His Pro Ala Cys Asn Val
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Asn Asn Pro His Ile\Cys Gly
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Ser Asp Gly Arg Asn Ala Ala Asp Asn Lys Pro Ser Asp Leu Ile
                  5
                                      10
                                                                    96
gct caa atc gtc agg aga gga tgc tgt tcg cat cct gtc tgt aaa gtg
Ala Gln Ile Val Arg Arg Gly dys Cys Ser His Pro Val Cys Lys Val
agg tat toa gac atg tgt ggt tgaagacgot gotgotocag gaccototga
                                                                    147
Arg Tyr Ser Asp Met Cys Gly
                                                                    157
accacgacgt
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<211> 39
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<213> Conus regius
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Ser Asp Gly Arg Asn Ala Ala Ala Asp Asn Lys Pro Ser Asp Leu Ile
Ala Gln Ile Val Arg Arg Gly Cys Cys Set His Pro Val Cys Lys Val
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Arg Tyr Ser Asp Met Cys Gly
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<210> 389
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<212> DNA
<213> Conus stercusmuscarum
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<221> CDS
<222> (1)..(114)
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tot gat ggc agg aat gca gag cga cga caa agc g\mathfrak{q}c tgt cct ggt cgc
Ser Asp Gly Arg Asn Ala Glu Arg Arg Gln Ser Vall Cys Pro Gly Arg
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1	•	5					10					15		
tct ggc ccc Ser Gly Pro	agg Arg	gga Gly	gga Gly	tgt Cys	tgt Cys	tcc Ser 25	cac His	cct Pro	gcc Ala	tgt Cys	aag Lys 30	gtg Val	cat His	96
ttt cca cac Phe Pro His 35	- 1	\ 1 T I		tgad	cgaco	gct (gatgo	ctcca	ag ga	accct	ctga	a		144
accacgacgt														154
<210> 390 <211> 38 <212> PRT <213> Conus	ster	cusm	usca	rum										
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Ser Gly Pro	Arg (G1 Y	Gly	Cys	Суѕ	Ser 25	His	Pro	Ala	Cys	Lys 30	Val	His	
Phe Pro His 35	Ser	Cys \	Gly		\									
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cac cag gta His Gln Val		Cys	Ser	Asn	Prø				Val		His	Pro		96
ctt tgt cgt Leu Cys Arg 35				tgat	tgct	cca (ggaco	cctc	ig aa	acca	cgac	g t		145
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His Gln Val	Cys 20	Cys	Ser	Asn	Pro	Val 25	Cys	His	Val	Asp	His 30	Pro	Glu	





<220> <221> CDS

Leu Cys

<210> 393 <211> 154 <212> DNA

<222> (1)..(123)

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get eeg gee ate agg g $\phi_{\!\!\!\!/}$ a tge tgt tee eac eet gte tgt aac ttg agt 96 Ala Pro Ala Ile Arg Gl\(\chi\) Cys Cys Ser His Pro Val Cys Asn Leu Ser 20 25

aat cca caa att tgt cgt dga aga cgc tgatgctcca ggaccctctg 143 Asn Pro Gln Ile Cys Arg Gly Arg Arg 40

154aaccacgacg t

<210> 394 <211> 41 <212> PRT <213> Conus striatus

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Ala Pro Ala Ile Arg Gly Cys Cys Ser H\straces Pro Val Cys Asn Leu Ser

Asn Pro Gln Ile Cys Arg Gly Arg Arg

<210> 395 <211> 117 <212> DNA <213> Conus textile <220> <221> CDS <222> (1)..(114)

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acc gac aag agg caa gaa tgc tgt tct cat cct gcc tgt aad gta gat Thr Asp Lys Arg Gln Glu Cys Cys Ser His Pro Ala Cys Asn Val Asp 20 25

cat cca gaa att tgt cgt tga





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His Pro Gla Ile Cys Arg
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<210> 396
<211> 38
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<213> Conus textile
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Phe His Gly Arg Asn Ala Ala Ala Lys Ala Ser Gly Leu Val Gly Leu
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His Pro Glu Ile Cys Arg
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<211> 151
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<213> Conus tulipa
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<221> CDS <222> (1)..(120) <400> 397

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acc gtc tgg gaa gga tgc tgt tct\aat cct gcc tgt ctc gtg aat cat Thr Val Trp Glu Gly Cys Cys Ser 96 20

ata cgc ttt tgt ggt gga aga cgc tbatgcccca ggaccctctg aaccacgacg Ile Arg Phe Cys Gly Gly Arg Arg

151 t

<210> 398 <211> 40 <212> PRT <213> Conus tulipa

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Ile Arg Phe Cys Gly Gly Arg Arg 35 40

<210> 399 <211> 157 <212> DNA

<210> 402





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Ala Gln Ile Al			gat cct gcc tgc Asp Pro Ala Cys 30	
aat aat cca go Asn Asn Pro Gl 35			tgccccag gaccct	ctga 147
accacgacgt				157
<210> 400 <211> 39 <212> PRT <213> Conus vi	\ irgo			
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Ala Gln Ile Al	la His Arg As 20	sp Cys Cys Asp A	Asp Pro Ala Cys	Thr Val
Asn Asn Pro G	ly Leu Cys Th	nr \		
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Thr Val Trp Ly	aa tgc tgt ac ys Cys Cys Th 20	cc att cct tcc t or Ile Pro Ser C 25	gt tat gag aaa Cys Tyr Glu Lys 30	aaa aaa 96 Lys Lys
att aaa gca to Ile Lys Ala Cy 35		gacgacgct gatgct	ccag gaccctctga	144
accacgacgt				154

Asp Ala Pro Ser Cys Gly 35





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Thr Val Trp Lys Cys Cys Thr Ile Pro Ser Cys Tyr Glu Lys Lys
Ile Lys Ala Cys Val Phe
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gtc agg aga gga tgc tgt ggd aat cct gcc tgt agc ggc tcc tcg aaa Val Arg Arg Gly Cys Cys Gly Asn Pro Ala Cys Ser Gly Ser Ser Lys
                                                                         96
                                    25
gat gca ccc tct tgt ggt tgaagacgct gctgctccag gaccctctga
                                                                         144
Asp Ala Pro Ser Cys Gly
                                                                         154
accacgacgt
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<211> 38
<212> PRT
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Val Arg Arg Gly Cys Cys Gly Asn Pro Ala, Cys Ser Gly Ser Ser Lys
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